“A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO TEACHING PROGRAMME ON KNOWLEDGE REGARDING LEARNING DISABILITIES OF SCHOOL CHILDREN AMONG PRIMARY SCHOOL TEACHERS IN A SELECTED SCHOOL AT ELAYAMPALAYAM, NAMAKKAL DISTRICT.”

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(Affiliated to the Tamil Nadu Dr. M. G. R. Medical University, Chennai-32)

ELAYAMPALAYAM, TIRUCHENGODU, PIN-637 205

TAMIL NADU

OCTOBER -2015

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2. **EXTERNAL EXAMINER**

Submitted in partial fulfillment of the requirements for the

DEGREE OF MASTER OF SCIENCE (NURSING)

The Tamil Nadu Dr.M.G.R.Medical University, Chennai-3

OCTOBER– 2015

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CERTIFICATE

This is to certify that, this thesis, **"A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO TEACHING PROGRAMME ON KNOWLEDGE REGARDING LEARNING DISABILITIES OF SCHOOL CHILDREN AMONG PRIMARY SCHOOL TEACHERS IN A SELECTED SCHOOL AT ELAYAMPALAYAM, NAMAKKAL DISTRICT "** submitted by **Ms. JISSA MARY JOSE, M.Sc. Nursing (2013-2015 Batch)** Vivekanandha College of Nursing in partial fulfillment of the requirement of the Degree in Master of Science (Nursing) from the Tamil Nadu Dr. M.G.R Medical University is her original work carried out under our guidance.

This thesis or any part of it has not been previously submitted for any other Degree or Diploma.

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DECLARATION

I hereby declare that this thesis entitled **"A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO TEACHING PROGRAMME ON KNOWLEDGE REGARDING LEARNING DISABILITIES OF SCHOOL CHILDREN AMONG PRIMARY SCHOOL TEACHERS IN A SELECTED SCHOOL AT ELAYAMPALAYAM, NAMAKKAL DISTRICT "** is the outcome of the original research work undertaken and carried out by me under the guidance and direct supervision of research advisor, **PROF. Mrs. R. NIRMALA KRISHNAN, M.Sc (N), (Ph.D)** and clinical speciality guide **Mrs. P. SENTHAMARAI, M.Sc (N),** Department of Child Health Nursing, Vivekanandha college of nursing, (Sponsored by Angammal Educational Trust), Elayampalayam, Tiruchengode, Namakkal District.

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ACKNOWLEDGEMENT

ACKNOWLEDGEMENT

"Be faithful in small things because it is in them that your strength lies."

- Mother Teresa

*Praise and glory to the **GOD ALMIGHTY** who is the source, strength and inspiration in every work of my life. I thank God for all the wisdom, knowledge, strength and guidance which led to the completion of this work.*

Several hands and hearts have moulded this work to its final shape and I would like to express my gratitude to all of them.

*I extend my heartfelt thanks and gratitude to **Vidhya Rathna, Rashtriya Ratan, Hind Rattan, Kalvi Yogi, Prof. Dr. M. KARUNANITHI, B.Pharm, M.S., Ph.D., D.Litt**. The chairman and secretary to Vivekanandha educational Institutions for providing opportunity to undertaken M.Sc. Nursing Programme in this esteemed institution.*

*It's my privilege to extent my heartful thanks and deep sense of gratitude to **Mrs. KRISHNAVENI KARUNANITHI, M.A**, chairperson, Vivekanandha educational institutions for providing opportunity to undertaken M.Sc.Nursing programme.*

*I express my sincere thanks to **Dr. S. ARTHANAREESWARAN, M.B.B.S., MD,** Executive Director, Vivekanandha Educational Institutions & Vivekanandha Medical Care Hospital.*

*I extend my sincere thanks to **Dr. K. SREERAGANITHI ARTHANAREESWARAN, M.B.B.S., M.S (OPTHAL),** Director, Vivekanandha Educational Institutions & Vivekanandha Medical Care Hospital.*

Nursing is a noble profession and the teacher who teach are equally on the same pedestal. It is initiation and guidance of my teachers and well-wishers who have strengthened my career at all levels.

*It is my pleasure and privilege to express my deep sense of gratitude to my esteemed principal **PROF. Mrs. R. NIRMALA KRISHNAN, M.Sc (N), (Ph.D),** Vivekanandha College of Nursing, Elayampalayam, who firmly but patiently guided me at every step of this work. Her kind guidance throughout my study is truly immeasurable.*

It is a great privilege to express my sincere thanks and deep sense of gratitude to my clinical speciality guide ***Mrs. P. SENTHAMARAI, M.Sc (N),*** *Department of Child Health Nursing, Vivekanandha college of Nursing, for her selfless guidance during every step of my study. Her timely help and encouragement supported me a lot throughout my study.*

I am immensely thankful to ***Mrs. A. SUJATHA, M.Sc (N),*** *class coordinator, associate professor, Vivekanandha College of Nursing, for her genuine concern and constructive suggestions for the completion of the study.*

My sincere thanks to ***Mr. S. SUDHARSANAM, M.Sc, M.Phil (Statistics****), Assistant professor in Statistics, Vivekanandha College of Nursing for his support and guidance in statistical analysis and interpretation of the data.*

My sincere thanks to all ***SUBJECT EXPERTS*** *who spent their valuable time for validating my tool, editing my study and making it a meaningful one.*

I am greatful and thankful to the English department for editing the thesis.

I wish to express my heartfelt gratitude for all ***PG FACULTY MEMBERS*** *of Vivekanandha College of Nursing for their valuable Guidance and suggestions in the completion of the study.*

I am also thankful to the ***LIBRARIAN AND ASSISTANT LIBRARIAN*** *of Vivekanandha College of Nursing, Elayampalayam, for helping me with the review and for providing all library facilities throughout the study.*

I am grateful and thankful to the ***Principal and Primary school teachers of AVVAI KSR Matriculation School, Tiruchengode*** *for their co-operation and help during my pilot study.*

I extent my sincere thanks to the ***Principal of Mahendra Matriculation Higher Secondary School*** *for granting permission to conduct the study.*

I express my heartfelt thanks to the ***Primary school teachers of Mahendra Matriculation Higher Secondary School*** *who enthusiastically participated in this study and without their co-operation the study would have remained a dream.*

I feel a deep sense of gratitude for the staff of ***SRIYAS COMPUTERS,*** *for sharing their valuable time in editing the thesis.*

True love is rare, and it's the only thing that gives life real meaning. We are what we are with the blessing and love of our dear and near one. It would not have been possible for me to complete this work without the love and support of my father ***Mr. V. D. JOSE,*** *my mother*

Mrs. KUNJUMOL JOSE, *my Loving and caring sisters* ***Mrs. JOSEY JOHNSON, Ms. JITTA MARY JOSE*** *and my brother in law* ***Mr. JOHNSON JOSEPH*** *who initiated me to take up this noble profession and also for their prayers, support and inspiration throughout the course of my study.*

I render my deep sense of gratitude to all ***my seniors, my class mates and my dear friends*** *for their constant help throughout the study.*

I thank all the unknown hands that helped me in shaping this dissertation work.

Ms. JISSA MARY JOSE

ABSTRACT

ABSTRACT

The thesis titled **"A study to evaluate the effectiveness of video teaching programme on knowledge regarding learning disabilities of school children among primary school**

teachers in a selected school at Elayampalayam, Namakkal district." was conducted by **Ms. Jissa Mary Jose** in partial fulfillment of the requirement for the degree of Master of Science in Nursing during the year 2013-2015.

OBJECTIVES:

- To assess the knowledge of primary school teachers regarding learning disabilities of school children before the administration of video teaching programme.
- To assess the knowledge of primary school teachers regarding learning disabilities of school children after the administration of video teaching programme.
- To compare the pre-test and post-test score.
- To find out the association between pre-test knowledge score with selected socio-demographic variables.

The research approach adopted for the study was quantitative evaluative approach. The research design selected for the study was quasi – experimental one group pretest post-test design, which was used to measure the effectiveness of video teaching programme.

The selection of primary school teachers was done by convenience sampling technique and the sample consists of 40 primary school teachers in Mahendra Matriculation Higher Secondary School at Elayampalayam, Namakkal district. The instrument used for data collection was semistructured questionnaire. The tool consists of 2 sections.

Section – A comprised of socio demographic variables

Section – B comprised of knowledge regarding learning disabilities of school children

The reliability of the tool was 0.94. Knowledge was assessed by using semi structured questionnaire from primary school teachers. The video teaching programme was administered following pretest. Post-test was conducted seven days after the administration of video teaching programme. The collected data were analyzed by using descriptive and inferential statistics in terms of frequencies, percentages, mean standard deviation, paired t – test and chi – square test.

SUMMARY OF MAJOR FINDINGS OF THE STUDY

Findings related to socio demographic variables of the primary school teachers.

- Out of 40 primary school teachers 17(42.5%) were between 26-30 years, 10(25%) were below the age group of 25 years, 7(17.5%) were between the age group of 31-35 years and 6(15%) were between 36 years and above.
- Most of the primary school teachers, 33(82.5%) were females, 7(17.5%) were males.
- Among 40 primary school teachers, 25(62.5%) were married, 14(35%) were unmarried and 1(2.5%) was divorced.
- According to the educational status out of 40 primary school teachers, 20(50%) were graduate with B.ED, 13(32.5%) were post graduate with B.ED, 5(12.5%) were any other category (M.Phil), 1(2.5%) were post graduate with M.ED and 1(2.5%) were teacher training (D.ED).
- Among 40 primary school teachers, 25(62.5%) have 1-5 years of teaching experience, 6(15%) have 6-10 years teaching experience, 5(12.5%) have above 10 years experience and 4(10%) have below 1 year of teaching experience.
- Most of the primary school teachers, 37(92.5%) believes that teachers play an important role in identifying learning disabilities, 3(7.5%) believes that teachers does not play an important role in identifying learning disabilities.
- Most of the primary school teachers, 32(80%) had no previous experience in identifying learning disabilities and 8(20%) had previous experience in identifying learning disabilities.

Findings related to effectiveness of video teaching programme.

The pretest result shows that 32(80%) of respondents had inadequate level of knowledge, 8(20%) had moderate level of knowledge and none of them had adequate knowledge level. In the post test 29(72.5%) had adequate level of knowledge, 11(27.5%) had moderate level of knowledge and none of the teachers had inadequate knowledge level.

The post test Mean score percentage (81.175%) of knowledge on learning disabilities were comparatively more than their pretest knowledge score (40.125%). It confirms that, there was increase in knowledge after the administration of video teaching programme.

The paired‘t’ test analysis of the pre test and post test knowledge $t=16.387 (p<0.05)$ was highly significant. This result evidently supports the effectiveness of video teaching programme in promoting the knowledge regarding learning disabilities of school children.

Findings related to relationship between socio demographic variables and pretest knowledge

The present study revealed that there was association between pre test knowledge and demographic variables such as age, educational status, years of teaching experience and previous experience in identifying learning disabilities. But there was no association between pretest knowledge and other socio demographic variables such as sex, marital status and role of teacher in identifying learning disabilities.

The findings of the study provided guidelines for nursing practice, nursing education, nursing administration and further nursing research.

RECOMMENDATIONS

- The study can be replicated on large samples; thereby the findings can be generalized to large population.
- A similar study can be conducted with a control group.
- A comparative study can be conducted in two different schools with similar setup.
- A descriptive study can be conducted among teachers regarding learning disabilities.
- A similar study conducted using other teaching strategies.
- A study can be carried to assess the knowledge and attitude of parents regarding learning disabilities.
- A retrospective study can be conducted regarding causes of learning disabilities among school children.

TABLE OF CONTENTS

	♠ Operational definitions ♠ Assumptions ♠ Research hypothesis ♠ Delimitations of the study ♠ Conceptual framework
II	**REVIEW OF LITERATURE**
III	**METHODOLOGY** ♠ Research approach ♠ Research design ♠ Description of variables ♠ Study setting ♠ Target population ♠ Sample and sampling technique ♠ Criteria for selection of sample ♠ Selection and development of tool ♠ Description of the instrument ♠ Pilot study ♠ Data collection procedure ♠ Plan for data analysis
	DATA ANALYSIS INTERPRETATION AND DISCUSSION
	SUMMARY, FINDINGS, CONCLUSION, NURSING IMPLICATIONS AND RECOMMENDATIONS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

A	Letter seeking permission to conduct the study
B	Letter granting permission to conduct the study
C	Letter seeking consent from the participants
D	Letter for validation of the tool
E	Semi- structured questionnaire
F	Video teaching programme on learning disabilities of school children
G	Evaluation criteria check list for validation of tool
H	Certificate of validation

INTRODUCTION

CHAPTER-I

INTRODUCTION

"A *child can't learn the way we teach, may we should teach the way they learn"*

- Ignacio Estrada

A child is unique individual; he or she is not a miniature adult. Children are major consumers of health care. In India; about 35 percent of total populations are children below 15 years of age. They are not only large in number but vulnerable to various health problems and considered as special risk group. Majority of childhood sickness and death are preventable by simple low-cost measures. Children always need special care to survive and thrive. Good health of these precious members of the society should be ensured as prime importance in all countries. As said by Karl Meninger 'what done to children, they will do to the society". Children are the wealth of tomorrow. **(Parul Datta, 2007).**

The segment of the life span that extends from age 6 to approximately age 12 has a variety of labels, each of which describes an important characteristic of the period. These middle years are most often referred to as school-age or the school years. This period begins with entrance in to the school environment, which has a significant impact on development and relationship. When children enter the school years, they begin to acquire the ability to relate a series of events to mental representations that can be expressed both verbally and symbolically. During this stage, children develop an understanding of relationship things and ideas. **(Marilyn J. Hockenberry, 2006*).***

Learning is a natural process. Learning starts from the moment of birth and continues till death. For successful adjustment with life, he has to acquire knowledge about many things, change his behavior according to the needs of the situation. The child starts to understand the world around him through learning. Human individuals are endowed with this superior ability and instinct to be natural learners. Learning is acquiring new or modifying existing knowledge, behavior, skills, values or preference and may involve synthesis of different types of information. However, learning is a very complex phenomenon. The process of learning has therefore, tremendous importance for the human beings and for some animals to live and exist. Without learning, life becomes completely meaningless, capacity to adjust becomes nil. According to

Benjamin Bloom; learning occurs through more complex mechanism under three domains cognitive, affective and psychomotor. **(M. S Bhatia, 2006).**

In the fields of neuropsychology, personal development and education, learning is one of the most important mental function of humans, animals and artificial cognitive systems. It relies on the acquisition of different types of knowledge supported by perceived information. Its goal is the increasing of individual and group experience. Learning functions can be performed by different brain learning processes, which depend on the mental capacities of learning subject, the type of knowledge which has to be acquitted, as well as on socio-cognitive and environmental circumstances. **(Psychology wiki, 2015).**

According to Mahatma Gandhi, "'Education means all round drawing out of the best in child and men body, mind and spirit" Only an efficient and an understanding teacher can identify the capacities, strength, and weakness innate in each student.

Education in its general sense is a form of learning in which the knowledge, skills, values, beliefs and habits of a group of people are transferred from one generation to the next through storytelling, discussion, teaching, training, and or research. Education may also include informal transmission of such information from one human being to another. Education frequently takes place under the guidance of others, but learners may also educate themselves (autodidactic learning). Any experience that has a formative effect on the way one thinks, feels, or acts may be considered as education. The early years of schooling generally focus around developing basic interpersonal communication and literacy skills. This lays a foundation for more complex skills and subjects. Later, education usually turns toward gaining the knowledge and skills needed to create value and establish a livelihood. **(Wikipedia, 2015).**

Education is often understood as a means of overcoming handicaps, achieving greater equality, and acquiring wealth and status. For all education is also often perceived as a place where children can develop according to their unique needs and potentials with the purpose of developing every individual to their full potential. **(Sargent, 1994).**

Specific learning disabilities (SpLD) is a generic term that refers to a heterogeneous group of neurobehavioral disorders manifested by significant unexpected, specific and persistent

difficulties in the acquisition and use of efficient reading (dyslexia), writing (dysgraphia) or mathematical (dyscalculia) abilities despite conventional instruction, intact senses, normal intelligence, proper motivation and adequate socio-cultural opportunity. The term Specific learning disabilities does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, of subnormal intelligence, of emotional disturbance, or of socio-cultural disadvantage. **(Dr.Sunil Karande, 2005).**

National Joint Committee on Learning Disorder defines learning disorder as "a heterogeneous group of disorder manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities".

Prenatal environmental factors influencing development of learning disability although uncommon include infections (HIV) as well as toxins such as alcohol in fetal alcohol syndrome, and also serious maternal systemic disease. Prenatal factors are seen usually as markers of learning disability which reflects pre-existing causes. **(Rob Newell & Kevin Gournay, 2000).**

When a person's skill in reading, writing, or mathematics is substantially below what would be expected for his or her age, education, and intelligence and when this interferes with the person's adjustment, the problem is said to be one of the three learning disorders. Children with reading disorders read slowly and with poor comprehension, and when reading aloud, they drop, substitute, or distort words. Children with disorders of written expression typically have a number of writing problems: poor paragraph organization; faulty spelling, grammar, and punctuation; illegible hand writing. In mathematics disorders, the child may fail to understand concepts, to recognize symbols, or to remember operations. Because children with learning disorders do poorly in school, they are often seen as failures by their teachers, parents, and peers. In consequence, they usually show low self esteem and low motivation by age 9, a problem which then worsens with time and with further failures. **(Lauren B Alloy & John H Riskind, 2007).**

Children with learning disorders often find it difficult to keep up with their peers in certain academic subjects, whereas they excel in others. Learning disorders affect at least 5 percent of school-age children. To meet the criteria for a diagnosis of learning disorder, a child's achievement in that particular learning area must be significantly lower than

expected and the learning problems must interfere with academic achievement or activities of daily living. **(Kaplan & Benjamin Sadock, 2009).**

Dyslexia (or specific reading disability) is the most common and most carefully studied of the Specific learning disability, affecting 80% of all those identified as learning-disabled. The incidence of dyslexia in school children in United States ranges between 5.3-11.8%. Although previously it was believed that dyslexia affects boys primarily, recent data indicate that boys and girls are affected equally. The earlier male preponderance has been attributed to a referral bias in school-identified children. **(Dr. Madhuri Kulkarni, 2014).**

Next to parents, teachers have the most profound influence on a child's life, especially during the grade school period when children need an older person of their own sex to 'worship'. A teacher of the same sex can be a role model for the child. Teachers help children develop a sense of industry through assignments, stimulation of group activities, and suggestions that children accept responsibilities for non academic duties in the class room. In addition, teachers can also deepen their student's sense of trust, autonomy, and initiative or encourage the growth of these traits. **(Dorothy R Marlow, 2009).**

Primary school teachers play a vital role in shaping the educational path of students, and thus they will always be needed to establish a solid foundation of learning. Primary school teachers are typically responsible for teaching children from first through fifth grades. They play an important role in developing a child's intellect and work habits, as primary school is the first time most children are in a strictly educational environment. While pre-kindergarten and kindergarten classes do teach children some basic skills and knowledge, such as shapes and colors, primary school immerses children in the educational environment they will be experiencing until graduation from high school.

According to National Centre for Learning Disorder, Teachers are the essential link between children with learning disorder and the interventions that help them. There is no student with learning disorder who cannot learn, if a teacher has received appropriate training and is willing to spend time, using his/ her expertise to reach and teach that child. It supports the value of team work in all aspects for caring people with Learning Disability. Trained teachers who

have positive attitude and practical knowledge concerning individual needs (physical, emotional & intellectual) and problems can prevent and manage emotional and psychosocial problems of young children.

NEED FOR THE STUDY

Learning disabilities are a group of neurological or brain-based problems that affect one or more ways that a person takes in, stores or uses information. Learning disabilities come in many forms and their effects are different from person to person. Learning disorders are defined as a discrepancy between actual achievement and expected achievement based on the person's age and intellectual ability. Learning disorders (often called learning disabilities) are typically classified as verbal (reading& spelling) or nonverbal (mathematics). **(Mary Ann Boyd, 2008).**

People with learning disabilities have average to above average intelligence yet they have very specific impairments in one or more of the psychological processes related to learning. These processes may include:

- Language processing (understanding and expressing information using words)
- Visual-spatial processing (perceiving or organizing visual information)
- Visual-motor processing (carrying out hand-eye activities)
- Phonological processing (identifying and manipulating speech sounds)
- Processing speed (speed of taking in, using or pulling out information)
- Working memory (holding information in mind while also using the information)
- Executive functions (planning and organizing)

Specific learning disability (SpLD) is a group of neuro developmental disorders which manifest in childhood as persistent difficulties in learning to efficiently read ("dyslexia"), write ("dysgraphia"), or do simple mathematical calculations ("dyscalculia") despite normal intelligence, conventional schooling, intact hearing and vision, and adequate motivation and socio-cultural opportunity. Up to 5-10% of "seemingly normal" school children have this hidden disability. Dyslexia affects 80% of all those identified as learning-disabled. Specific learning disabilities is now believed to be a result of functional problem with brain "wiring" rather than an anatomic problem and is genetically inherited. **(S. Karande, 2008).**

Learning disabilities are due to genetic, other congenital and/or acquired neuro-biological factors. They often run in families. Learning disabilities are not caused by factors such as cultural or language differences, inadequate or inappropriate instruction, socio-economic status or lack of motivation, although any one of these and other factors may compound the impact of learning disabilities. Most people with learning disabilities are resilient, and learn to manage challenges and achieve success. There are a number of factors that help. These include: Understanding their learning disabilities and what helps them learn, Learning how to set realistic goals, to solve problems and to make good choices, Being open to asking for and getting help, Not giving up when things get hard, Believing successes are due to their own efforts, Believing they can learn from their mistakes, Feeling respected and connected to others, Having someone who will listen to them and understand their feelings and Being an active member of a community or group. **(Integra, 2009).**

Learning disabilities are diagnosed most commonly as an outcome of a comprehensive psychological assessment. Using a number of standardized tests that have been given to thousands of people, psychologists will systematically look at how people think, problem-solve, remember, understand and express information. **(Dr. Richard Lavoie, 2009).**

Learning disabilities arise from neurological differences in brain structure and function and affect a person's ability to receive, store, process, retrieve or communicate information. Learning disabilities may also be a consequence of insults to the developing brain before or during birth, involving such factors as significant maternal illness or injury, drug or alcohol use during pregnancy, maternal malnutrition, low birth weight, oxygen deprivation and premature or prolonged labor. Postnatal events resulting in learning disabilities might include traumatic injuries, severe nutritional deprivation or exposure to poisonous substances such as lead. Learning disabilities are thought to be diagnosed in early schooling. In August 2012 National centre for learning disability collected data from a random sampling of 1,980 adults in the United States, evenly distributed across males and females, via an online survey. Over half (53 percent) believe that learning disabilities are diagnosed during grades 1–4. Nearly a quarter (23 percent) thinks that they're diagnosed in kindergarten. Nearly eight in ten people (76 percent) correctly say that genetics can be a cause of learning disabilities. Many respondents (43 percent) wrongly think that learning disabilities are correlated with IQ. **(Candace Cortiella, 2014).**

There is no definitive record of the number of people with learning disabilities in England. It is estimated that in England in 2010 1,198,000 people have learning disabilities. This includes 298,000 children (188,000 boys, 110,000 girls) age 0-17; 900,000 adults aged 18+ (526,000 men and 374,000 women), of whom 191,000 (21%) are known to learning disabilities services. Over 200,000 children in England have a primary special educational needs associated with learning disabilities. Of these, four out of five have a moderate learning difficulty, one in twenty have profound multiple learning difficulties. **(Eric Emerson & Chris Hatton, 2010).**

In India around 13-14% of all school children suffer from learning disorders. Unfortunately, most schools fail to lend a sympathetic ear to their problems. As a result, these children are branded as failures. **(Sangeeta Sakhuja, 2004).**

Information about Specific learning disabilities occurring in Indian children is scanty. The incidence of dyslexia in primary school children in India has been reported to be 2-18%, of dysgraphia 14%, and of dyscalculia 5.5% (17-19). However, awareness that Specific learning disability is an important cause of academic underachievement has recently increased. **(Pub med, 2014).**

A large number of children with mild intellectual disabilities (mental retardation), borderline intelligence and specific learning disabilities face difficulties in coping with the academic demands in schools. Such children are in large number and their difficulty is invisible, which further compounds the problems. These children who seem to be functioning like other peers in all aspects except academics. Teachers are puzzled, as these students do not have a visible disability. Such children actually might have a problem in their learning process. If given appropriate support and taught in the way they learn, they can be helped to cope with the academics. To help such children in learning, it is essential to understand the learning process, how and why learning disabilities occur, and what measures can be taken for correcting such problem. **(Dr. Jayanthi Narayan, 2003).**

Learning disability or learning disorder is a very real problem in the country and sensitivity to it has been rising all over India. In the past two decades the percentage of children classified as having learning disability has increased substantially from less than 30% of all children receiving special education and related service in 1977 to a little more than 50% today.

Students with disabilities or suspected disabilities are evaluated by schools to determine whether they are eligible for special education services and, if eligible, to determine what services will be provided. Of all disability categories, mild learning disability may be the most difficult to diagnose. Eligibility for learning disability typically involves teacher or parent referral because of concerns about achievement lagging behind the child's apparent intelligence or measured IQ. The evaluation typically includes observation in the regular classroom, review of the child's educational history including past test scores, assessment with standardized tests of achievement and intellectual functioning, determination if there are any discrepancies between achievement and intellectual ability, and elimination of other possible causes of the learning problem. **(Daniel J. Reschly, 1996).**

Teachers spend most of their day time in the class room .The class room is an interactive world that stimulate the senses and creates changes in behavior. Learning is a change in behavior. Teachers understand the operation of learning process. A teacher stimulates a pupil's sense to accomplish learning.

Intervention for learning disabilities when at a young age can help a child function as well as any normal child. Child with learning disorders might have emotional or behavioral problem. The children exhibit specific learning disabilities look normal intellectuals with normal physical abilities. Parents and teachers must remain sensitive to the need and feeling of learning disabled children.

Agujar A. P. et al., (2012) conducted an experimental study on elementary school teacher's base line knowledge about attention deficit hyperactivity disorder and learning disorders. The objective of the study was to investigate the elementary teacher's knowledge about attention deficit hyperactivity disorder and learning disorders and the impact of a strategy to increase awareness of these disorders. A total of 37 teachers were selected from four elementary schools in the catchment area of the University Hospital, in Porto Alegre, Brazil. The result of the study shows that intervention significantly increased teachers' knowledge of both disorders, even after adjustment for confounding factors ($p < .001$). Future studies are warranted to confirm the efficacy and evaluate the long-term impact of this intervention.

Lingeswaran A, (2013) conducted an observational study on assessing knowledge of primary school teachers on specific learning disabilities in two schools in India. The objective of

the study was to assess the knowledge of learning disability among primary school teachers in India and to investigate its psychometric properties. The samples were 34 primary school teachers from 2 different schools in Pondicherry. The results of this study showed that the fund of knowledge of primary school teachers on Specific learning disabilities was only 29% in this sample, which indicates poor fund of knowledge. Hence, it might be irrational to associate their prior reading exposure of specific learning disabilities during their teacher training period.

Sheila Saravanabhavan, (2012) conducted a survey to determine the knowledge level of learning disabilities (LD) among teachers in India. The objective of this study was to determine the knowledge level of learning disabilities (LD) among teachers in India. A survey was distributed among 144 teachers in two regular high schools, 38 teachers in two special schools, and 165 pre-service teachers in a teacher education college in a metropolitan city in a southern state in India. One-way analysis of variance (ANOVA) showed that the knowledge level of learning disabilities among teachers working in regular schools was statistically different. The study makes recommendations on how to improve the knowledge level of learning disabilities among pre-service teachers in India, and the need to assess knowledge of Learning disabilities among physicians, parents, paraprofessionals, educational administrators and other stake holders.

In the light of above ideas and experience the investigator was observed that it is essential to intensify and improve the awareness regarding learning disabilities. Therefore the investigator planned to conduct the study to administer video teaching programme regarding learning disabilities of school children among primary school teachers.

STATEMENT OF THE PROBLEM

"A study to evaluate the effectiveness of video teaching programme on knowledge regarding learning disabilities of school children among primary school teachers in a selected school at Elayampalayam, Namakkal district."

OBJECTIVES OF THE STUDY

- To assess the knowledge of primary school teachers regarding learning disabilities of school children before the administration of video teaching programme.
- To assess the knowledge of primary school teachers regarding learning disabilities of school children after the administration of video teaching programme.

- To compare the pre-test and post-test score.
- To find out the association between pre-test knowledge score with selected socio-demographic variables.

OPERATIONAL DEFINITIONS

Evaluate

Statistical measurement of the knowledge of primary school teachers regarding learning disabilities of school children as observed from scores based on semi-structured questionnaire.

Effectiveness

Refers to the significant gain in knowledge as determined by significant difference in pretest and post test scores.

Video teaching programme

Audio visual aid on learning disabilities of school children which can be used anywhere through television by using CD player.

Knowledge

Defined as the correct responses of the primary school teachers to the knowledge items regarding learning disabilities of school children in the semi-structured questionnaire.

Learning disabilities of school children

Refers to the difficulties in the use of listening, speaking, reading, writing, reasoning or mathematical abilities and are more prevalent in the age group of 6-12 years.

Primary school teacher

A person who has successfully completed either the diploma, graduate or post graduate programme in education and working as a primary school teacher handling the school children in the age group of 6-10 years.

ASSUMPTIONS

- Teachers may have some knowledge regarding learning disabilities of school children.
- Video teaching programme may enhance the knowledge of primary school teachers regarding learning disabilities of school children.
- Knowledge of primary school teachers regarding learning disabilities may be influenced by different variables like age, sex, marital status, educational status, years of teaching experience, role of teacher and previous experience in identifying learning disabilities.

HYPOTHESIS

- H_1: There will be a significant difference between the mean pre-test knowledge score and the mean post test knowledge score regarding learning disabilities of school children among primary school teachers.
- H_2: There will be a significant relationship between pre-test knowledge score with selected demographic variables such as age, sex, marital status, educational status, years of teaching experience, role of teacher in identifying learning disabilities and previous experience in identifying learning disabilities.

DELIMITATIONS

The study was limited to the primary school teachers who:

- Were working in Mahendra Matriculation Higher Secondary School, Elayampalayam.
- Were present during the period of data collection.
- Were willing to participate in the study.
- Had completed any one of the basic education programme for teaching.

CONCEPTUAL FRAME WORK

Conceptual frame work is a set of concepts and propositions that spell out the relationship between them. The overall purpose is to make scientific findings meaningful and generalizable.

Polit and Hungler, (2008) states that a conceptual frame work is inter related concepts on abstractions that are assembled together in some rational scheme by virtue relevance to common theme. The present study was aimed to evaluate the effectiveness of video teaching programme on knowledge regarding learning disabilities of school children among primary school teachers. The conceptual frame work of the study is based on Imogene M King's 'theory of goal attainment'.

Imogene M King put forward the 'theory of goal attainment', King received multiple honors and awards in the field of nursing. King (1997) stated that communication is the interchange of thoughts and opinions among individuals. Communication is the main key for facilitating mutability and trust between the nurse educator and the primary school teachers. Communicate with each other and exchange their ideas regarding learning disabilities of school children.

King model states that it is a human process that can be observed in many situations when two or more people interact such as in the family and in social events. As nurses bring knowledge and skills that influence our perceptions, communications and interactions in performing the functions of the role. King's concept of nursing is applied to the study as follows; nursing is an interpersonal process of action, reaction, interaction and transaction whereby the nurse educator and the primary school teachers share information about their perceptions in the nursing situation.

Perception

Perceptions refer to each person's representation of reality. Concept of self, socio economic group, biological inheritance and educational back ground. In this study the nurse educator perceives the inadequacies of the situation and analyzes the primary school teacher's knowledge regarding learning disabilities of school children.

Judgment

Judgment is defined as a dynamic and systematic process by which goal directed choice of perceived alternatives made and acted upon by individuals or groups to answer a question and

attain a goal. In this study the judgment by the nurse educator is deciding to teach about learning disabilities of school children and judgment by the primary school teachers are deciding to learn about learning disabilities of school children.

Action

Communication between the nurse educator and the primary school teachers occurs thus creating action. In this study action by the nurse educator refers to the pretest conducted by the nurse educator to assess the knowledge of primary school teachers. Action by the primary school teachers refers to cooperating and filling the semi structured questionnaire given in the pretest.

Reaction

Reaction occurs as a result of action. In this study the reaction is that the primary school teachers lack knowledge regarding learning disabilities of school children.

Disturbance

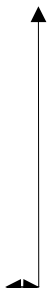
Inadequate knowledge of the primary school teachers is the disturbance felt in the study.

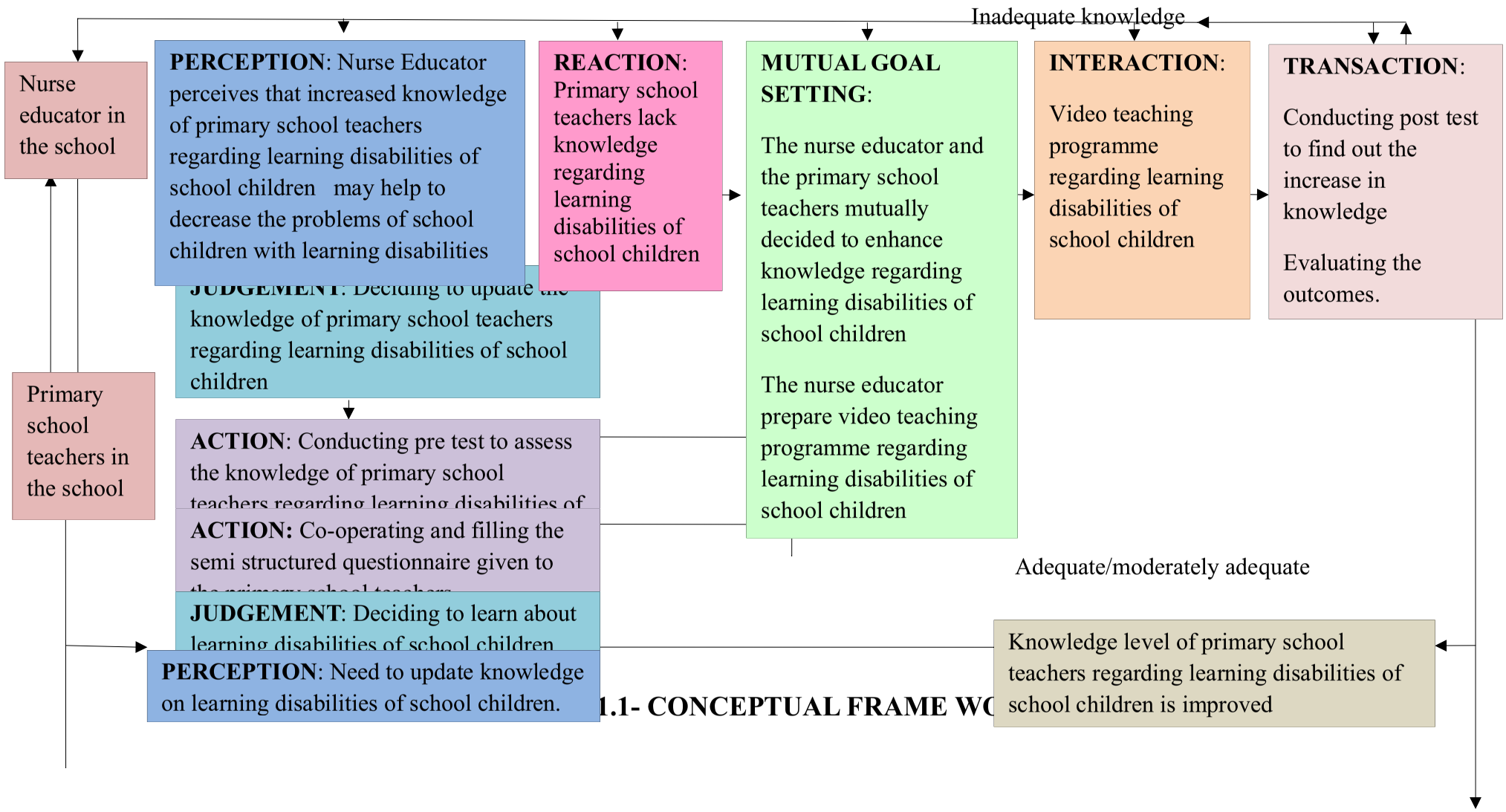
Mutual goal setting

The nurse educator and the primary school teachers mutually decide to enhance the knowledge regarding learning disabilities of school children and to attain this goal the nurse educator prepares the video teaching programme regarding learning disabilities of school children.

Interaction

Interaction is the process of perception and communication between person and environment, between person and person represented by verbal and nonverbal behavior that is goal directed. In this study the interaction is the video teaching programme regarding learning disabilities of school children by the nurse educator to the primary school teachers.





1.1- CONCEPTUAL FRAME WO

SUMMARY

This chapter deals with introduction, need for the study, statement of the problem, objectives of the study, operational definitions, assumptions, research hypothesis, delimitations and conceptual frame work.

REVIEW OF LITERATURE

CHAPTER- II

REVIEW OF LITERATURE

Literature review is defined as a broad, comprehensive, in depth, systematic and critical review of scholarly publication, unpublished printed or audio visual materials and personal communications. **(S.K. Sharma, 2011).**

Literature review can inspire new research ideas, and help to lay the foundation for studies. The literature review provides readers with a background for understanding current knowledge on a topic and illuminates the significance of the new study. **(Polit & Beck, 2010).**

Review of literature was done from published articles, text books and reports. The investigator reviewed and organized the related literature for the present study under the following headings;

- Importance of school health
- Definition of learning disabilities
- Incidence of learning disabilities
- Causes of learning disabilities
- Types of learning disabilities
  - Reading disorder (Dyslexia)
  - Writing disorder (Dysgraphia)
  - Mathematics disorder (Dyscalculia)
- Clinical features of different types of learning disabilities
- Management of different types of learning disabilities
- How to identify learning disabilities
- Associated problems of children with learning disabilities
- Role of teacher in the management of learning disabilities
- Barriers encountered by students with learning disabilities
- Knowledge of school teachers regarding learning disabilities of school children
- Educational programs in improving the knowledge of school teachers regarding learning disabilities

School becomes an ideal location for preventing illness and inoculating awareness of hygiene and healthy practices. A major part of children's day is spent in school. Where they work in peer groups, develop listening skills and interact with teachers and environment. Besides providing them with a healthy environment to study and play, schools can be the right place for observing, detecting, traiting, referring and recording the physical mental and psychosocial problems. **(Piyush Gupta, 2007, p. 164).**

DEFINITION OF LEARNING DISABILITIES

The National center for learning disabilities, (2006) defines a learning disability as 'a neurological disorder that affects the brains ability to receive, process, store, and respond to information'

A learning disability refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical skills. **(Marilyn J. Hockenberry, 2005, p. 537).**

Learning disabilities refers to a variety of disorders that affect the acquisition, retention, understanding, organization or use of verbal and/or nonverbal information. These disorders result from impairments in one or more psychological processes related to learning, in combination with otherwise average abilities essential for thinking and reasoning. Learning disabilities are specific not global impairments and as such as distinct from intellectual disabilities. **(Learning Disabilities Association of Ontario, 2001).**

INCIDENCE OF LEARNING DISABILITIES

About 5% to 10% of children and adolescents have learning disabilities; some estimates are as high as 17%. About half of the children with a learning disability have at least one other co morbid condition (usually mental health or behavioral disorder). Learning disabilities become

It is estimated that there are approximately 210,000 people with severe and profound learning disabilities of which 65,000 are children and young adults. Evidence suggests that their number may increase by 1% per annum for the next 15 years as a result of a number of factors such as increased life expectancy, increases in technological advances, resulting in children with complex and multiple disabilities surviving longer, increased awareness of disabilities that are now being diagnosed .The first sign of a previously undiagnosed learning disability may be the child's failure to meet developmental milestones and these significantly broaden as the child becomes older. **(Anna Sidey, 2005, p. 281).**

Akhil Dhanda et al., (2013, pp. 386-390) conducted a survey research on the prevalence and pattern of learning disabilities in school children. The sample of the study consisted of 1156(boys-668 and girls 488) primary school children (6 years to 13 years) studying in English and Hindi medium schools of rural area of Jaipur. The result of the study shows that dyslexia was seen in 32(26.6%) students, dysgraphia was seen in 33(22.30%) students, dyscalculia was seen in 23(15.54%) students. Mixed learning disorder was seen in 60(40.50%) students. The number of students having learning disorder was higher in higher age group. More large scale studies are warranted to know the exact prevalence and pattern of learning disabilities in school going children.

Mogasale V. et al., (2013, pp. 439-440) conducted a cross-sectional multi-staged stratified randomized cluster sampling study to measure the prevalence of specific learning disabilities among primary school children in a South Indian city. The objective of the study is to measure the prevalence of specific learning disabilities (SpLDs) such as dyslexia, dysgraphia and dyscalculia among primary school children in a South Indian city. The study was conducted among 50 children aged 8-11 years from third and fourth standard. Result of the study shows that the prevalence of specific learning disabilities was 15.17% in sampled children, whereas 12.5%, 11.2% and 10.5% had dysgraphia, dyslexia and dyscalculia respectively. The prevalence of

Chandigarh, India. A total of 124 students (classes VII to XII) from 10 schools of Chandigarh, India participated in the study. The result of the study showed that a total of 38 students were found to be having specific developmental disorder of scholastic skills in phase I. Specific learning disability was not identified even till later age. The screening instrument thus could be used by teachers to suspect students with specific learning disability

CAUSES OF LEARNING DISABILITIES

A learning disability can result from a single causative factor or from multiple interacting factors. These are pre conceptual, prenatal, perinatal and post natal factors. The pre conceptual factors include genetic characteristics of the parents. Prenatal factors include chromosomal anomalies, genetic disorders, maternal disorders, infection, irradiation, immunological and toxicological damage. Perinatal factors include difficult or abnormal labour, birth injury, prematurity and gestational disorders. Postnatal factors include malnutrition of the child, sensory social deprivation, blood chemistry imbalances, infection, ingestion of toxins and cerebral trauma. **(Alan Glasper & Jim Richardson, 2006, p. 784).**

Learning disorder may result from a variety of genetic, constitutional or neuro developmental factors. Any factor that disrupts central nervous system functions may result in a learning disorder .The incidence is thought to be 10% to 15%of the population. The disorders may occur with other handicapping conditions, such as sensory impairment, mental retardation, or emotional disturbance, cultural differences or educational deficits, but are not caused by those conditions or influences. **(Catherine .E. Burns & Margaret, 2009, p. 336).**

TYPES OF LEARNING DISABILITIES

Specific Learning Disabilities can be classified in to three broad categories, they are: Dyslexia (Impairment of reading), Dysgraphia (Impairment of written expression) and Dyscalculia (Impairment of arithmetic). **(Johnson Alex, 2013, p. 175)**

Developmental dyslexia refers to a neuro developmental syndrome characterized by specific and significant impairments in reading despite conventional instruction, adequate intelligence, sensory acuity and socio-cultural opportunity. **(Hamid R. Pouretemad, 2011, p. 259).**

Dyslexia is characterized by an unexpected difficulty in reading in children and adults who otherwise possess the intelligence, motivation, and opportunities to learn considered necessary for accurate and fluent reading. Dyslexia is the most common and most comprehensively studied of the learning disabilities affecting at least 80% of children identified as manifesting learning disability. Dyslexia may be the most common neuro behavioral disorder affecting children with prevalence rates ranging from 5-10% -in clinic and school -identified samples to 17.5% in unselected population based sample. **(Richard &Behrman, 2004, pp. 109-111).**

Dyslexia accounts for 80% of learning disabilities. Prevalence of the trait ranges from 3 to 17.5% of school-age children. Etiology remains largely unknown, but substantial evidence from multidisciplinary research suggests that dyslexia is a disorder of genetic origin with a basis in the brain. It is found that males are more frequently affected than females. Hormonal factors such as fetal testosterone levels during late pregnancy may play a critical role and this is possibly reflected in the large male predominance of dyslexia. **(Pushpa Saviour & Nallur B. Ramachandra, 2006, p. 168).**

Clinical features of reading disorder (Dyslexia)

People with dyslexia usually have trouble making the connections between letters and sounds and with spelling and recognizing words. People with dyslexia often show other signs of the condition. These may include failure to fully understand what others are saying, difficulty organizing written and spoken language, delayed ability to speak, poor self-expression (for example, saying "thing" or "stuff" for words not recalled), difficulty learning new vocabulary, either through reading or hearing, trouble learning foreign languages, slowness in learning songs

words that sound alike, trouble learning to recognize letters of the alphabet), along with a positive family history, represent significant risk factors for dyslexia. In the school-age child, presenting complaints most commonly center on school performance ("She's not doing well in school"), and often parents (and teachers) do not appreciate that the cause is a reading difficulty. A typical picture is a child who may have had a delay in speaking, does not learn letters by kindergarten, and has not begun to learn to read by first grade. **(National institute of child health and human development, 2014).**

Management of reading disorder (Dyslexia)

For readers who have dyslexia, extra time is an essential accommodation that allows them the time to decode each word and to apply their unimpaired higher-order cognitive and linguistic skills to the surrounding context to determine the meaning of words that they cannot decode entirely or rapidly. Other helpful accommodations include allowing the use of laptop computers with spelling checkers, tape recorders in the classroom, recorded books (materials are available from Recording for the Blind and Dyslexic), access to syllabi and lecture notes, use of tutors to "talk through "and review the content of reading material, alternatives to multiple-choice tests (e.g., reports or orally administered tests), and a separate quiet room for taking tests. **(Sally E. Shaywitz & Bennett A. Shaywitz, 2003, pp. 151-152).**

2. Writing disorder (Dysgraphia)

"Dysgraphia is a neurological disorder characterized by writing disabilities. The disorder generally emerges when students are introduced to writing. They make inappropriately sized and spaced letters or write incorrect or misspelled words, in spite of thorough instruction." **(Pierangelo & Guiliani, 2006, pp. 13-15).**

The prevalence of dysgraphia at school age varies from 5 to 27% (Van Hartingsveldt et al.) and depends, for instance, on grade, selection criteria, and assessment

construction and punctuation & abnormal content of what is written, i.e. semantic aspects of dysgraphia. A dysgraphia is also the disability most likely to persist in to secondary school in the child with developmental slow speech followed by dyslexia and dysgraphia. The child who has brain damage acquired after the development of speech, reading, and swriting may show a persisting disorder of writing even after there has been an otherwise good recovery. **(Forfar & Arneils, 1993, p. 848).**

Clinical features of writing disorder (Dysgraphia)

Simply having poor handwriting does not mean that your student has a diagnosis of dysgraphia. Along with poor handwriting, additional signs and symptoms of dysgraphia include: Cramped or awkward pencil grip and body position, Mixing printed and cursive letters within the same word, Mixing lower- and uppercase letters within the same word, Difficulty with syntax (forming sentences or phrases) and grammar (using rules to write sentences), Difficulty thinking and writing at the same time and Unfinished or omitted words. **(Kay, M. J, 2007).**

Management of writing disorder (Dysgraphia)

Identifying students that have dysgraphia can be a challenge because it affects them to different degrees or is often combined with other types of learning problems (Cavey 1987). Although the accurate determination of dysgraphia requires the input of a qualified clinician, such as an occupational therapist, parents and teachers can observe symptoms of this handwriting difficulty. Students showing these symptoms can be assessed for language and fine motor skills, and are eligible for special education. There is no cure for dysgraphia. Instead, students must be taught both compensation and remediation strategies to help them cope with or improve their writing ability (Richards 1999). It may be helpful for some students to begin the day with simple warm up exercises before any writing activity, such as stretching rubber bands, pressing their fingers together, opening and closing fists rapidly, rapidly shaking hands and fingers, or molding

be practiced daily, often for months. Specifically designed exercises are needed to increase strength and dexterity. A specialist can recommend the most appropriate plan of exercises. One effective method is to teach the use of a word processor, by-passing the complex motor demands of handwriting. Many students may find learning the keyboard by the alphabet method easier than beginning with the home keys. **(Deuel, Ruthmary K, 1995, pp. S6-S8).**

3. Mathematics disorder (Dyscalculia)

Dyscalculia is defined as a serious impairment of the learning of basic numerical - arithmetical skills in a child whose intellectual capacity and schooling are otherwise adequate. It is supposed to be demonstrable by standardized psychometric testing that reveals poor calculating ability despite normal intelligence. **(Michael von Aster, 2012, p. 769).**

Population studies in countries as diverse as the United States, Germany, India, and Israel demonstrate that the prevalence of developmental dyscalculia ranges from 3 to 6.5% in the school age population. The number of girls with dyscalculia is equivalent to that of boys. Compared with children with developmental dyscalculia alone or those with dyscalculia and attention deficit hyperactivity disorder, children with dyscalculia in combination with dyslexia are more profoundly impaired. **(Ruth S Shalev, 2003, p. 766).**

Clinical features of mathematics disorder (Dyscalculia)

Children with mathematics disorder (Dyscalculia) have difficulty learning and remembering numerals, cannot remember basic facts about numbers, and are slow and inaccurate in computation. Poor achievement in four groups of skills have been identified in mathematics disorder; linguistic skills (those related to understanding mathematical terms and converting written problems in to mathematical symbols), perceptual skills, mathematical skills and attentional skills. Mathematical skill alone is estimated to occur in about 1% of school children. Epidemiological studies have indicated that up to 6% of school age children have some difficulty

Dyscalculia, if untreated, persists into adulthood. When dyscalculia is suspected, a detailed diagnostic evaluation should be performed. The primary task of specialists in child and adolescent psychiatry, and of the school health services, is to determine whether any comorbid (associated) disturbances are present. The differential evaluation of performance on numerical-arithmetical and non-numerical skills lies in the area of competence of school psychologists and neuropsychologists. Ideally, the performance profile that is generated by the diagnostic evaluation should serve as a point of departure for intervention planning. **(Liane Kaufmann, 2012, pp. 773-774).**

The first step in treating dyscalculia is to recognize that a math disability can be anxiety-producing and even traumatic for some students. Thus, it is imperative that those providing guidance and assistance (teachers, parents, tutors, and friends) be infinitely patient and emotionally supportive. The second step in treating dyscalculia is to identify specific weaknesses (e.g., memory issues, sequencing problems, etc.). One specific problem areas are identified; effective remedial strategies can be implemented and reinforced. Help the students to visualize math problems, provide examples that relate to real-life situations, use graph paper to help students keep numbers aligned, spend extra time helping students memorize math facts, provide one-on-one work with a tutor during after-school hours and make learning the basics fun by using flash cards and computer games. **(Shantell Berrett, 2010).**

HOW TO IDENTIFY LEARNING DISABILITIES

Diagnosing whether a child has a learning disability is often a difficult task (Berninger, 2006). One identification procedure requires a significant discrepancy between actual achievement and expected achievement, the latter being estimated by an individually administered intelligence test. The diagnosis of learning disability should be given only when the child has a minimum IQ level, has a significant difficulty in a school related area and does not display certain severe emotional disorders or experiences difficulties as a result of using English as a second language

Children and adolescents with learning disorders are often first referred for an evaluation because of their behavior. The clinical history will help to raise the suspicion of a learning disability. The diagnostic evaluation to rule in or rule out a learning disability is called a psycho educational assessment. The first studies assess the individual's intellectual level, as well as potential intellectual ability and cognitive style. Next, the current level of academic skills is measured through standardized achievement tests. Finally, a comprehensive special education diagnostic evaluation is done to clarify areas of learning abilities and learning disabilities. **(Melvin Lewis, 1996, pp. 524-525).**

ASSOCIATED PROBLEMS OF CHILDREN WITH LEARNING DISABILITIES

Children with learning disability usually present with behavioral difficulties, hyper activity, poor attention span, day dreaming, fidgety, impulsive distractible, hypersensitive, bedwetting, fluctuating moods and school failures. A multi disciplinary approach is necessary with pediatrician, psychologist, educational specialist, social workers, and when necessary, a psychiatrist and others. Drugs may be useful in to control hyper activity, enuresis and emotional difficulties. **(A. Parthasarathy, 2006, pp. 82-83).**

Children with learning disability may present with anxiety, depression or behavior problems due to frustration. Learning disorders may include the highly intelligent or 'gifted' child who can cope in a normal class no better than a subnormal child and who may present with major behavioral disturbances. **(Malcolmi Levene, 2000).**

Specific learning disorders occur in particular subject areas where there is an unexpected discrepancy between intellectual ability and the level of academic attainment in that subject. Behavioral problems are common in children with learning difficulty. These disorders were assumed to have a specific neurological basis. It is important to

Learning disabled children are just as intelligent as other children and perform as well as their class mates on tasks that do not require them to process information in particular ways. Learning disabled children face problems both inside and outside the class room. The problems of learning disabled don't end when they leave the class room. As a group, they have poorer social skills than other students. They are less likely to pick up on another's mood and respond appropriately and are less aware of the effect their behavior has on others. **(Nancy J Cobb, 2001, p. 435).**

It is essential that children with learning disabilities are regard as children first and that their needs are met as well as those of the rest of the family. Their needs are the same as for any other child but in addition their special needs must also be addressed. **(Lindsay, 1998).**

ROLE OF TEACHER IN THE MANAGEMENT OF LEARNING DISABILITIES

Teachers, schools and boards of education are responsible for assessing students for the purposes of planning instruction, providing support services and identifying students with special needs. Even if a student is suspected of having a learning disability, teachers should provide a variety of personalized interventions and accommodations prior to being considering a referral for a formal psycho-educational assessment. Informal assessment such as classroom assessments, systematic observation, file review and interviews are as important as administering formal instruments to determine levels of academic skill development and identify strengths and weaknesses in learning processes. Because it is so important to intervene as early as possible, teachers should not wait for formal assessment to occur before they put strategies in place. **(Lavoie, R, 2007).**

BARRIERS ENCOUNTERED BY THE STUDENTS WITH LEARNING DISABILITIES

has grown in India. However, much needs to be done to ensure that each afflicted child gets an opportunity to achieve his or her full academic potential in regular mainstream schools. In order to achieve this ideal scenario, all 'regular' classroom teachers should be sensitized to suspect, and trained to screen for this disability when the child is in primary school. To ensure that classroom teachers develop appropriate teaching strategies to teach children with Specific learning disabilities, they need to attend teacher training workshops. School managements should become proactive to set up resource rooms and employ special educators to ensure that these children receive regular and affordable remedial education. **(Rukhshana Sholapurwala et al., 2011, pp. 515-519).**

KNOWLEDGE OF SCHOOL TEACHERS REGARDING LEARNING DISABILITIES OF SCHOOL CHILDREN

Catherine Wormald, (2014, pp. 87-93) conducted a survey to investigate the teacher's knowledge of gifted learning disabled students in New South Wales, Australia. The objectives of study are to assess the teachers' knowledge of, and attitudes towards, these students; and, the educational programs they implemented for these students. Eight teachers and school counselors at eleven schools participated in the research. The majority of teachers, including those from selective high schools, had no formal training in either gifted education or learning disabilities. In order to provide an educational program that is appropriate for these students, teachers need to have sound knowledge and understanding of the special educational needs of this population of students.

Nasreen Banu et al., (2014, pp. 1-7) conducted a survey research on "identification of learning disabilities among primary school children". The objectives of the study are to find out the prevalence of learning disabilities among the primary school children and to find out the knowledge content of learning disabilities among the primary school teachers. The total Sample comprised of 7405 children & 48 Primary school teachers from 48 primary schools across the

of various aspects related to learning disability, such as: Concept of learning disability (93%), Prevalence of LD (94%), Characteristics of children with LD (95%).

Stuart Woodcock, (2013, pp. 16-26) conducted a cross sectional study to identify trainee teachers' attitudes towards students with specific learning disabilities. The objectives of the study are to identify the attitudes of trainee1 teachers towards students with specific learning disabilities and differentiation of the curriculum. The participants in this study were 652 trainee teachers drawn from three varied universities across New South Wales. A survey questionnaire was used to gather the data for this study. The study findings revealed that the primary trainee teachers had a moderately higher positive attitude to students with specific learning disabilities than their secondary counterparts.

Sourav Mukhopadhyay, (2013, pp. 73-82) conducted a qualitative case study on "voices of experience: Botswana primary schools teachers on inclusive education". The objectives of the study are to investigate teachers' perceptions of the impact of inclusion of learners with special educational needs on their classes and the practice of inclusive education in Botswana. 36 teachers from six primary schools of the South Central Region of Botswana were selected for the study. The study findings revealed that majority of the general education teachers was not familiar with the concept of inclusive education and did not fully support it. The teachers primary concerns were inadequate training, lack of resources, and high student-teacher ratio as barriers to the successful implementation of inclusive education in Botswana.

R. Kamala et al., (2013, pp. 168-174) conducted a survey to assess the Knowledge of Specific Learning Disabilities among Teacher Educators in Pondicherry, Union Territory in India. The objective of the study is to ascertain the level of knowledge about specific learning disabilities among the teacher educators' .The sample consists of 94 teacher educators from 10 colleges of education located in Pondicherry region, who were selected on the basis of stratified random sampling. The result of the study shows that the entire group has average level of

Disability in the Province of Kermanshah. The objective of the study is to investigate the awareness of teachers in identifying children with learning disabilities. 291 teachers of primary school were selected by multi-stage sampling. The result of the study revealed that more than 50 percent of teachers have appropriate knowledge to the nature of learning disability. More than 90 percent of teachers had not acceptable ability in identifying students with learning disorders. There are significant differences between gender and level teaching of teachers with the knowledge of the etiology learning disabilities.

Mathew Binu, (2012, p. 26) conducted a descriptive study to assess the knowledge and attitude of school teachers regarding learning disabilities among children in selected schools at Bhilai C.G. The objective of the study is to determine the knowledge and attitude on learning disabilities among school teachers and develop a 'Self Instructional Module on Learning Disabilities 'for teachers. 60 primary school teachers selected by convenient sampling technique from selected schools at Bhilai. A structured questionnaire for knowledge and attitude scale for attitude assessment was used. Results of the study revealed that none of the teachers had excellent knowledge on learning disability but almost all (98.3%) had highly favorable attitude towards such children.

Richel C. Dapudong, (2012, pp. 1-21) conducted a descriptive-survey to investigate Thai teachers' knowledge and attitude towards inclusive education of children with learning disabilities (LD) in public primary schools in Nonthaburi Province, Thailand in the school year 2011-2012.The objective of the study is to investigate Thai primary school teachers knowledge and attitude towards the new amendment requiring inclusion of students who have learning disabilities in to public primary schools in Thailand. 310 general education teachers selected through stratified sampling method. Findings of the study revealed that the respondents had partial knowledge on the provision of legislation and exhibited moderate knowledge on the symptoms of learning disabilities. There is a need to investigate explicit details about teacher

disabilities in regular primary schools and to identify whether or not the classroom teachers were aware of their presence. A sample of 200 participants was drawn out of 11,304 eligible persons. Data were collected using questionnaires, classroom observation guide, interview schedules, and documentary review checklist. The result of the study showed that 15% of pupils in regular schools have learning disabilities even though few teachers were aware of their presence and how to provide appropriate instruction for their learning. The methods teachers use in identifying pupils with disabilities could not accurately and effectively identify pupils with learning disabilities.

Mohamed Z. et al., (2012, pp. 1-23) conducted a qualitative study on exploring foundation phase school teachers' perceptions of learning difficulties in two Johannesburg schools. The objective of this study was to explore teachers' perception of learning difficulties. A non probability, convenience sample of eight foundation phase teachers working in two mainstreamed, government schools in the Johannesburg West region was selected. The result of the study found that a clearer definition needs to be established to enable teachers to correctly identify these learners .Most of the teachers have negative perceptions of learning disability and this negativity can thus affect the education of these learners.

Wilhelmina J. Vialle et al., (2011, pp. 1-28) conducted a survey on 'Are we exacerbating students' learning disabilities? An investigation of preservice teachers' attributions of the educational outcomes of students with learning disabilities'. The objective of the study is to investigate preservice teacher's attribution of the educational outcomes of students with learning disabilities. 444 Australian preservice primary school teachers from four University campuses across New South Wales were surveyed using vignettes and Likert-scale questions. The study found that preservice primary school general education teachers held a negative attribution style towards students with learning disabilities.

Monika Sharma, (2011, pp. 1-24) conducted a cross sectional study to assess the awareness

a few teachers were aware about the provisions provided by the government. The teachers need to be more educated about these conditions and should be kept updated regarding the provisions provided by the government and CBSE board.

Michelle de Almeida Horsae Dias et al., (2011, pp. 1-10) conducted a quantitative research study on assessment of the awareness of dyscalculia among educators. The objectives of the study are to obtain local data in the metropolitan region of Rio de Janeiro on the knowledge and perception of educators of signs indicative of dyscalculia. 63 teachers of schools in the east zone of Rio de Janeiro, Niteroi, São Gonçalo and the Baixada Fluminense participated in the study. The result of the study shows that Forty five point two percent reported not to know what dyscalculia is. Only 12.9% believed they can identify signs of dyscalculia. The participants have little specific knowledge about dyscalculia and showed to be insecure with respect to their ability to identify possible cases of dyscalculia.

Raquel Caroline Ferreira Lop et al., (2011, pp. 1214-1226) conducted an Analytical study of teachers' knowledge about learning disorders. The objectives of the study were to investigate the teachers' conception about learning disorders, revealing different aspects related to the way they realize it in everyday classes, which factors attribute as causes of the problem and how to deal with this question. 25 teachers participated in this study, who teaches in the Public Elementary School in Sao Paulo. A questionnaire was applied to investigate the knowledge that the teacher would have about learning disabilities. The results and conclusion of this study showed that the teachers do not have knowledge on learning disorders, but we can observe the effectiveness of orientation and training.

Gateru w agnes, (2010, pp. 65-69) conducted a descriptive survey research on teachers awareness and intervention for primary school pupils with learning disabilities in inclusive education in Makadara division Kenya .The objectives of the study is to establish teachers awareness and intervention for pupils with learning disability. The target respondents were 30

Teachers were aware of inclusive education in their schools and teachers had different interventions in place to ensure the success of inclusive education.

Gwernan-Jones R et al., (2010, pp. 66-86) conducted an exploratory survey on 'Are they just lazy? Student teachers' attitudes about dyslexia'. The objectives of this study were to prove student teachers' attitudes at a prestigious School of Education in the Southwest of England. 408 primary and secondary Post Graduate Certificate in Education (PGCE) students responded to a survey asking about their attitudes toward dyslexia. The result of the study revealed that student teachers expressed strongly positive attitudes toward the construct of dyslexia, with the majority expressing confidence in their ability to support dyslexic pupils. Females held significantly more positive attitudes toward dyslexia than males.

Dr. Dorit Patkin et al., (2010, pp. 1-17) conducted a qualitative research study to examine the attitudes of mathematics teachers towards the inclusion of students with learning disabilities and special needs in mainstream classrooms, Israel. The research objectives were to investigate the attitudes of inclusive teachers, who teach mathematics in elementary school. The research participants were 36 currently in practice female-teachers with a teaching experience of more than 3 years. Findings of the study indicate that about 39% of the teachers perceive disabilities as problematic in the understanding of the process. Teachers' knowledge of the topic is partial, whereas teachers' attitudes towards inclusion are positive with regard to the three aspects of the research.

Gandhimathi U. et al., (2009, pp. 71-78) conducted a descriptive study to assess the awareness about learning disabilities among the primary school teachers in Tiruverumbur block, Tiruchirappalli .The objectives of the study is to assess the level of awareness about learning disabilities among the primary school teachers. Based on lottery method 71 teachers from 16 schools in Tiruverumbur block, Tiruchirappalli were selected. The result of the study found that majority of the respondents (66.2%) was found to have low level of overall awareness about

Adebowale O. F et al., (2009, pp. 1-15) conducted a descriptive survey on teachers' knowledge of, and attitude towards learning disabilities. The objectives of the study are to examine the level of teachers' awareness and attitude to pupils possessing such disabilities. One hundred teachers were randomly selected from 10 primary schools in Osun State, Nigeria as participants in the study. The result shows that a considerable percentage (44.7%) had positive attitude towards it and were ready to assist learners undergoing such difficulties. Most of the teachers (43.6%) had good knowledge of learning difficulties while another 18.1% had excellent knowledge of what constitutes learning difficulties. Considerable proportion of the teaching population under study still had unacceptable level of knowledge (fair and poor) of what learning difficulties mean.

Van Steenbrugge et al., (2008, pp. 1-9) conducted a survey research on mathematics learning difficulties in primary education: teachers' professional knowledge and the use of commercially available learning packages in Flanders, Belgium**.** The objectives of the study is to develop an overview of mathematics learning difficulties in primary education and an attempt is made to analyze whether the implementation of a specific commercially available learning package does matter in relation to reported mathematics learning difficulties. **.** A sample of 918 teachers from 243 schools in Flanders completed a questionnaire. The results indicate that five commonly available learning package's are dominantly used by primary school teachers in their mathematics classes. The choice for specific commercially available learning packages could matter to attain specific learning goals.

Jamal. M. Al khatib, (2007, pp. 72-75) conducted a survey on general education teachers' knowledge of learning disabilities in Jordan. The objective of the study is to investigate the Jordanian regular education teachers knowledge of learning disabilities .The sample consisted of 405 regular classroom teachers teaching 1st- to 6th- grade students in 30 schools in three Jordanian districts. The results of the study revealed that teachers had a moderate level of

classrooms in Victoria, Australia. The objective of the study was to consider the attitudes of teachers toward the inclusion of students with learning disabilities in to regular class rooms. Participants included 122 primary school teachers around Victoria, selected by random sampling technique. The findings of the study suggest that participants in this study generally held positive attitudes toward the inclusion of students with disabilities into regular settings. Participants who reported having undertaken training in special education were found to hold more positive attitudes and to experience lowered levels of concern, about implementing inclusive education.

EDUCATIONAL PROGRAMS IN IMPROVING THE KNOWLEDGE OF SCHOOL TEACHERS REGARDING LEARNING DISABILITIES

Shivaji H. Pawar et al., (2014, pp. 2382-2385) conducted an evaluative research study to assess the effectiveness of self instructional module on knowledge of primary school teachers Regarding learning disorders among children in selected schools at Karad City. The Objectives of the study is to assess the knowledge among primary school teachers on learning disorders before and after administration Self instructional module and to find the association between knowledge with selected socio demographic variables.60 primary school teachers were selected through convenient sampling technique. The findings of the study concluded that primary school teachers had adequate knowledge regarding learning disorders among children. The Self instructional module was highly effective in improving the knowledge.

Ms. Anjana Williams et al., (2013, pp. 20-23) conducted a quasi experimental Study to evaluate the effectiveness of a learning package on competency of primary school teachers regarding learning disabilities of children, in selected school of Dehradun. The objectives of the study are to evaluate the effectiveness of a Learning Package on competency of Primary School Teachers regarding Learning Disabilities among children and to find out the association between pretest knowledge score with selected demographic variables. Total 38 teachers were selected

Madhuri Kulkarnis et al., (2005, pp. 789-793) conducted a survey research to assess the impact of the provisions of the Maharashtra government on the academic performance of children with specific learning disability (SpLD) at the Secondary School Certificate (SSC) board examination. The study objective was to assess the impact of the provisions of the Maharashtra government on the academic performance of children with specific learning disability (SpLD) at the Secondary School Certificate (SSC) board examination. The academic performance of 60 children (45 boys, 15 girls) at the SSC board examination with benefit of chosen provisions was compared with their performance at their last annual school examination before diagnosis of specific learning disability. The result of the study showed that children with specific learning disability who availed the benefit of provisions showed a significant improvement in their academic performance at the SSC board examination.

SUMMARY

The investigator reviewed the literature and studies related to learning disabilities of school children. It helped the investigator to obtain in depth knowledge regarding the topic. And also it made the investigator to become aware of various strategies that can be used to develop the conceptual framework, tool, video teaching programme and decide the plan for data analysis.

METHODOLOGY

Methodology of research refers to investigation to obtain, organize and analyze data. Methodological studies address the development, validation and evaluation of research tool (or) methods. **(Polit & Beck, 2010).**

This chapter deals with the description of methodology and different steps, which were adopted for gathering and organizing data for the investigation, achievement of the aims and objectives of the present study.

Methodology of the present study deals with research approach , research design, variables under the study, study setting, target population, sample and sampling technique, sample selection criteria, selection and development of the tool, content validity of the tool, reliability of the tool, development of video teaching programme, pilot study, data collection procedure and plan for data analysis.

RESEARCH APPROACH

"It is an applied form of research that involves finding out how well a programme, practice, procedure or policy working."**(Polit & Beck, 2010).**

A research approach tells the researcher from whom to collect the data, how to collect the data, and how to analyze them. It also suggests possible conclusions and helps the researcher in answering specific research question in the most accurate and efficient way possible. **(Nancy and Groove, 2005).**

The research approach used for this study was quantitative evaluative approach.

RESEARCH DESIGN

"It is the overall plan for addressing a research question, including specifications, for enhancing the integrity of the study."**(Polit & Beck, 2010).**

The research design used for this study was one group pretest –post test design (0_1-x-0_2), according to Campbell and Stantey; it is the quasi experimental design. This design is widely used in educational research.

The design adopted for the present study can be represented as

- One group pretest post test design.

  $E = 0_1 X 0_2$

Key:-

E ⟶ Effectiveness of video teaching programme.

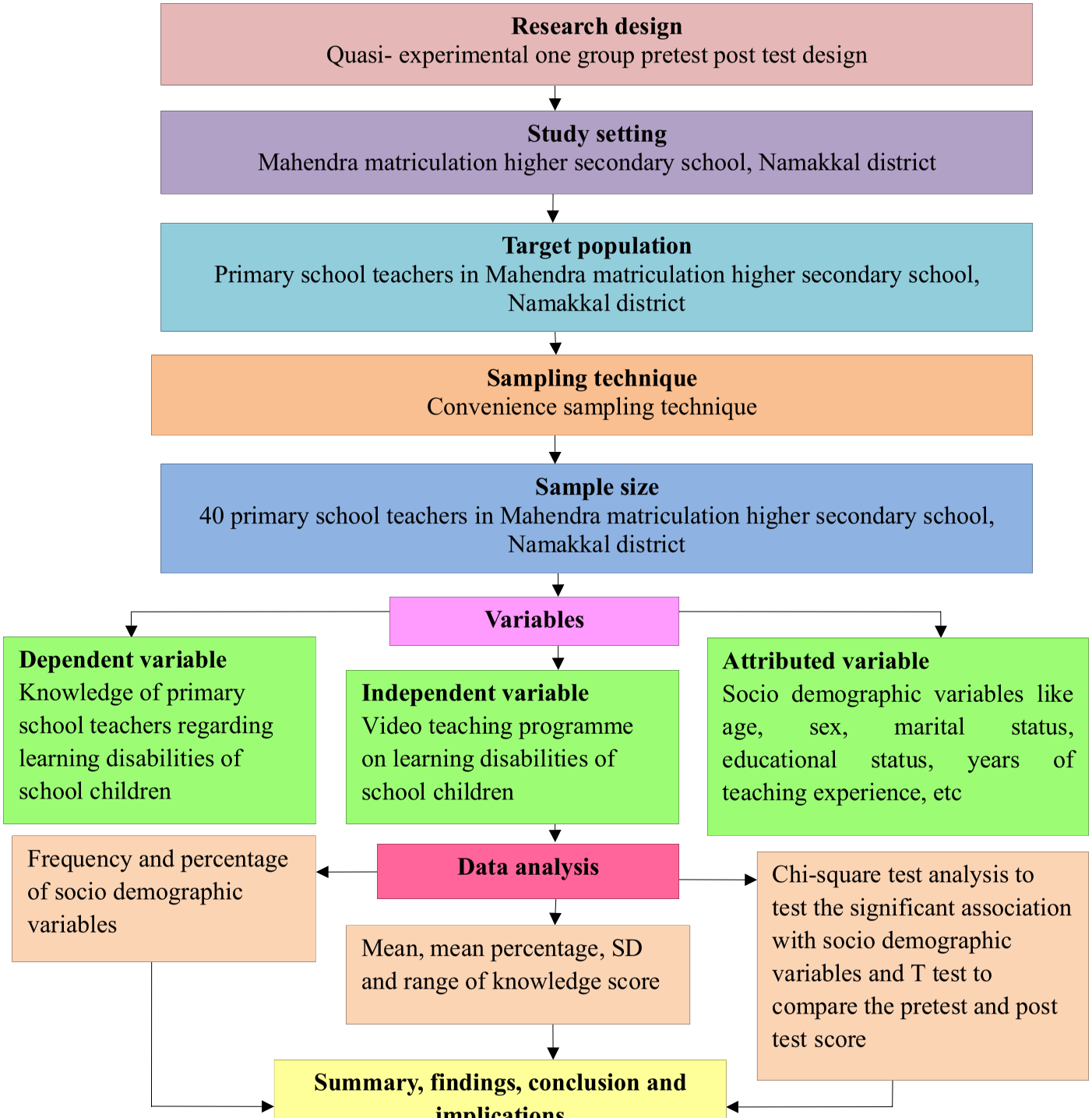
0_1 ⟶ Knowledge level of primary school teachers regarding learning disabilities of school children before administration of video teaching programme.

X ⟶ Video teaching programme on learning disabilities of school children.

0_2 ⟶ Knowledge level of primary school teachers regarding learning disabilities of school children after administration of video teaching programme.

Schematic representation of the research design

Group	**Pretest**	**Treatment**	**Post test**
Primary school teachers in a selected school at Elayampalayam.	Knowledge level of primary school teachers regarding learning disabilities of school children. (0_1)	Video teaching programme on learning disabilities of school children. (X)	Effectiveness of video teaching programme on knowledge level. (0_2)


Research design
Quasi- experimental one group pretest post test design
Study setting
Mahendra matriculation higher secondary school, Namakkal district
Target population
Primary school teachers in Mahendra matriculation higher secondary school, Namakkal district
Sampling technique
Convenience sampling technique
Sample size
40 primary school teachers in Mahendra matriculation higher secondary school, Namakkal district
Variables
Dependent variable
Knowledge of primary school teachers regarding learning disabilities of school children
Independent variable
Video teaching programme on learning disabilities of school children
Attributed variable
Socio demographic variables like age, sex, marital status, educational status, years of teaching experience, etc
Data analysis
Frequency and percentage of socio demographic variables
Mean, mean percentage, SD and range of knowledge score
Chi-square test analysis to test the significant association with socio demographic variables and T test to compare the pretest and post test score
Summary, findings, conclusion and

Independent variables

Independent variable is a stimulus or activity that is manipulated or varied by the researcher to create an effect on dependent variable. The independent variable is also called a treatment or experimental variable. **(Polit & Beck, 2010).**

In this study, video teaching programme on learning disabilities of school children is the independent variable.

Dependent variables

Dependent variable is the response behavior or outcome that the researcher wants to predict or explain. **(Polit & Beck, 2010).**

In this study, the dependent variable refers to the knowledge of primary school teachers regarding learning disabilities of school children.

Attributed variables

Attributed variables are pre existing characteristics of the study participants, which the researcher simply observes or measures to describe samples. **(Polit & Beck, 2010).**

Attributed or demographic variables are the characteristics of the subjects that are collected to describe the samples. Age, sex, marital status, educational status, years of teaching experience, role of teacher in identifying learning disabilities and previous experience in identifying learning disabilities are the attributed variables in the present study.

STUDY SETTING

Study setting is the physical location and condition in which data collection takes place in the study. **(Polit & Hungler, 2004).**

- Economy of time and money

The study was conducted in Mahendra matriculation higher secondary school at Elayampalayam, Namakkal district.

TARGET POPULATION

Target population is the entire population in which the researcher is interested and would like to generalize the results of the study. **(Polit & Beck, 2004).**

The target population comprised of all primary school teachers in Mahendra matriculation higher secondary school at Elayampalayam, Namakkal district.

SAMPLE AND SAMPLING TECHNIQUE

Sampling technique is the process of selecting a portion of the population to represent the entire population. **(Polit & Becck, 2004).**

Sample is a subset of the population selected to participate in a research study to generalize population characteristics. **(Polit & Beck, 2010).**

The sample of the study comprised of 40 primary school teachers in Mahendra Matriculation Higher Secondary School at Elayampalayam, Namakkal district.

Sampling technique used for this study was convenience sampling technique, which enables to decide conveniently in selecting subjects from the population.

CRITERIA FOR SELECTION OF SAMPLE

Inclusion criteria

Primary school teachers of both sexes who:

- Had completed any one of the basic education programme for teaching.
- Were working in Mahendra Matriculation Higher Secondary School at Elayampalayam, Namakkal district.
- Were willing to participate in the study.
- Were present during the period of data collection.

Exclusion criteria

- The primary school teachers who were not willing to participate in the study

SELECTION AND DEVELOPMENT OF TOOL

Selection of instrument

According to Carol L Macne, the study methods used to collect data are intended to allow the researcher to construct a description of the meaning of the variables under study.

Semi structured questionnaire was used to evaluate the knowledge of primary school teachers regarding learning disabilities of school children. Since it is considered to be the most appropriate instrument to elicit the responses from the literate subjects.

Development of the tool

The tool used for the study comprised of:

- Semi structured questionnaire with multiple choice questions.
- Video teaching programme.

- ❖ Consultation with experts.

1. Review of related literature

Literature related to the topic available from books, journals, periodicals, published and unpublished research studies and articles were reviewed to develop the tool.

2. Preparation of blue print

The blue print of the items pertaining to the domain of knowledge of learning disabilities of school children was prepared as per objectives and the conceptual frame work. The blue print included definition and incidence of learning disabilities of school children; causes and types of learning disabilities; clinical features and how to identify learning disabilities ; team members involved in diagnosis; and the role of teacher in management of learning disabilities of school children.

3. Consultation with experts

The investigator discussed the topic with experts in the field of medicine, nursing, education and statistics. Their opinion and suggestion were taken to modify the content. The research consultant and guide were consulted when finalizing the tool.

DESCRIPTION OF THE INSTRUMENT

1. Semi structured questionnaire

It was prepared to assess the knowledge of primary school teachers regarding learning disabilities of school children.

The semi-structured questionnaire comprised of two parts:

❖ Section I- socio demographic variables

❖ **Section II**

The knowledge aspects consist of 40 questions regarding learning disabilities of school children. The maximum score of this section was 40; each correct answer is given a score one.

Scoring procedure

There were 40 items pertaining to the knowledge regarding learning disabilities of school children. Each item with only one appropriate answer. The maximum score for the correct response to each item was 'one' and for wrong response 'zero'. The level of knowledge was categorized based on the percentage of score obtained.

Scoring for level of knowledge

Level of knowledge	Percentage of score	Actual score
Inadequate	0-50 %	0-20
Moderate	51-75%	21-30
Adequate	76-100%	31-40

2. Video teaching programme

The video teaching programme was developed based on the objectives, review of literature, sample size and experts opinion. The main factors were kept in mind while preparing the video teaching programme were literacy level of the sample, simplicity of the language, attention span of the samples, areas covered as per knowledge assessment and the relevance of teaching aid.

Video teaching programme was developed based on the following steps:

- Refer the related literature regarding learning disabilities of school children.
- Organization of the contents

The literature i.e. child health nursing books, journals, periodicals, published and unpublished research studies and articles were reviewed to prepare the content of the video teaching programme.

❖ Organization of the content

- Introduction.
- Definition of learning disabilities.
- Incidence of learning disabilities of school children.
- Causes of learning disabilities
- Types of learning disabilities.
    - Reading disorder (Dyslexia)
    - Writing disorder (Dysgraphia)
    - Mathematics disorder (Dyscalculia)
- Clinical features learning disabilities.
- How to identify learning disabilities of school children.
- Team members involved in the diagnosis of learning disabilities of school children.
- Role of teacher in the management of learning disabilities of school children.
- Conclusion.

❖ Validity and reliability of the tool

Content validity

The content validity of the tool was obtained from five experts in the field of nursing, medicine, education and bio statistics. All other comments and suggestion by the experts were duly considered and modifications were made. The final tool comprised of socio demographic variables with 7 items and knowledge section with 40 items.

Reliability of the instrument

Reliability of research instrument is defined as the extent, to which the instrument yields the same results on repeated measure. **(Polit & Beck, 2006).**

❖ Preparation of the final draft

The final draft of the questionnaire and video teaching programme was prepared after testing the validity and reliability

PILOT STUDY

According to Polit and Hungler, (2004) "A pilot study is small scale version done in preparation for a main study."

After obtaining permission from the concerned authority the pilot study was conducted in the month of June 2015 at AVVAI KSR Matriculation School, Tiruchengode. 4 primary school teachers were selected by convenient sampling. A semi structured questionnaire was used to evaluate the pretest level of knowledge, video teaching programme was administered and then effectiveness of video teaching programme was evaluated after 7 days using the same tool. The teachers cooperated well and answered all the questions.

DATA COLLECTION PROCEDURE

Ethical consideration

Prior to data collection, the investigator obtained written permission from the principal of Mahendra matriculation higher secondary school at Elayampalayam, Namakkal district to conduct the final study. 40 primary school teachers were selected by using convenience sampling technique. The primary school teachers were assured that anonymity of each individual would be maintained and informed consent was obtained from primary school teachers.

Period of data collection

The data was collected from 40 primary school teachers in Mahendra Matriculation Higher

structured questionnaire to assess the knowledge regarding learning disabilities of school children.

Presentation of video teaching programme

Immediately after the pre test, video teaching programme was presented to the primary school teachers in group. The time period was 25 to 30 minutes.

Evaluation of video teaching programme/ post test

Evaluation of video teaching programme was done by conducting post test, 7 days after the presentation of the video teaching programme by using the same semi structured questionnaire.

PLAN FOR DATA ANALYSIS

The data obtained were analyzed in terms of objectives of the study by using descriptive and inferential statistics. The plan for data analysis was as follows:

- Data were organized in master sheet.
- The frequencies and percentage was used for the analysis of socio demographic variables.
- Mean, mean score percentage and standard deviation was used to assess the pretest and post test scores.
- Paired‘t’test was used to find out the effectiveness of video teaching programme in terms of gain in knowledge.
- Inferential statistics especially chi-square test was used to determine the association between the pre test knowledge scores with the selected demographic variables.

SUMMARY

A quasi experimental study was conducted among 40 primary school teachers working in Mahendra Matriculation Higher Secondary School at Elayampalayam, Namakkal district, to evaluate the effectiveness of video teaching programme on knowledge regarding learning

DATA ANALYSIS, INTERPRETATION AND DISCUSSION

CHAPTER-IV

DATA ANALYSIS, INTERPRETATION AND DISCUSSION

Analysis is the process of organizing and synthesizing data so it helps to answer research questions and test hypotheses. Interpretation is the process of making the sense of results of a

analysis is to reduce the data to an interpretable and meaningful form that, analysis results can be compared and significance can be identified.

The data analysis contains five major sections. The first section includes the number and percentage of analysis which will be used to describe the demographic variables of teachers. The second, third and fourth sections of data analysis include descriptive analysis which will describe knowledge of teachers regarding learning disabilities of school children before and after video teaching programme. The final section of the data analysis involves chi-square analysis which was run to examine the association of pretest knowledge with selected demographic variables.

The data which are necessary to provide the adequacy of the study were collected through semi structured questionnaire and analyzed using relevant descriptive and inferential statistics. The substantive summary of the findings were arranged in line with objectives of this study.

OBJECTIVES

- To assess the knowledge of primary school teachers regarding learning disabilities of school children before the administration of video teaching programme.
- To assess the knowledge of primary school teachers regarding learning disabilities of school children after the administration of video teaching programme.
- To compare the pre-test and post-test score.
- To find out the association between pre-test knowledge score with selected socio-demographic variables.

PRESENTATION OF DATA

The data analysis contains five major sections:

Section-I

Frequencies and percentage analysis was used to describe the socio demographic variables of 40 primary school teachers.

Section-II

Analysis of knowledge level of primary school teachers regarding learning disabilities of school children after administration of video teaching programme.

Section-IV

Comparison of pretest and post test knowledge level of primary school teachers regarding learning disabilities of school children.

Section-V

Chi-square analysis to bring out the association between pre test knowledge and demographic variables. The data collected through "semi structured questionnaire" was entered in the master sheet. The obtained data was analyzed by using descriptive and inferential statistics which are necessary to evaluate the effectiveness of video teaching programme.

SECTION – I

DESCRIPTION OF SOCIO DEMOGRAPHIC VARIABLES OF PRIMARY SCHOOL TEACHERS

Table 4.1.1: Distribution subjects according to their age

N=40

1. 2. 3. 4.	≤25 years 26 – 30 31 – 35 36 and above	10 17 7 6	25% 42.5% 17.5% 15%
	Total	40	100%

Table: 4.1.1 and figure 4.1.1 shows the distribution of primary school teachers according to their age. Among 40 primary school teachers, majority 17 (42.5%) were in the age group of 26 – 30 years, 10 (25%) were in the age group of ≤25 years, 7 (17.5%) were in the age group of 31-35 years and the rest 6 (15%) were in the age group of 36 years and above.

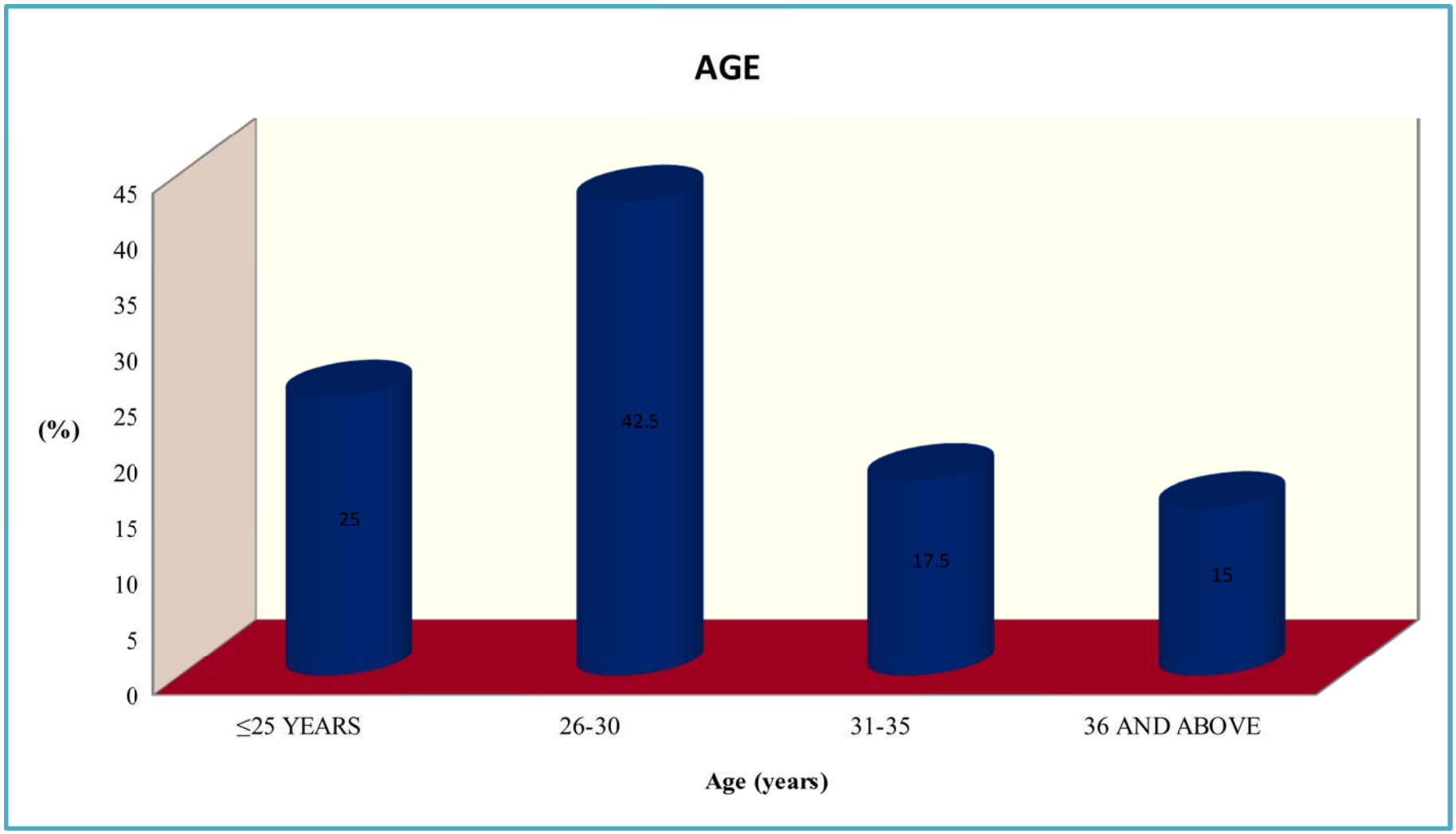

AGE
45
40
35
30
25
20
15
10
5
0
(%)
25
42.5
17.5
15
≤25 YEARS
26-30
31-35
36 AND ABOVE
Age (years)

Fig 4.1.1: Distribution of subjects according to their age

Table 4.1.2: Distribution of subjects according to their sex

N=40

Sl. No.	Sex	No. (40)	Percentage (%)
1.	Male	7	17.5%
2.	Female	33	82.5%
	Total	40	100%

Table: 4.1.2 and figure 4.1.2 shows the distribution of primary school teachers according to their sex. Among the primary school teachers, majority 33(82.5%) were females and the rest 7 (17.5%) were males.

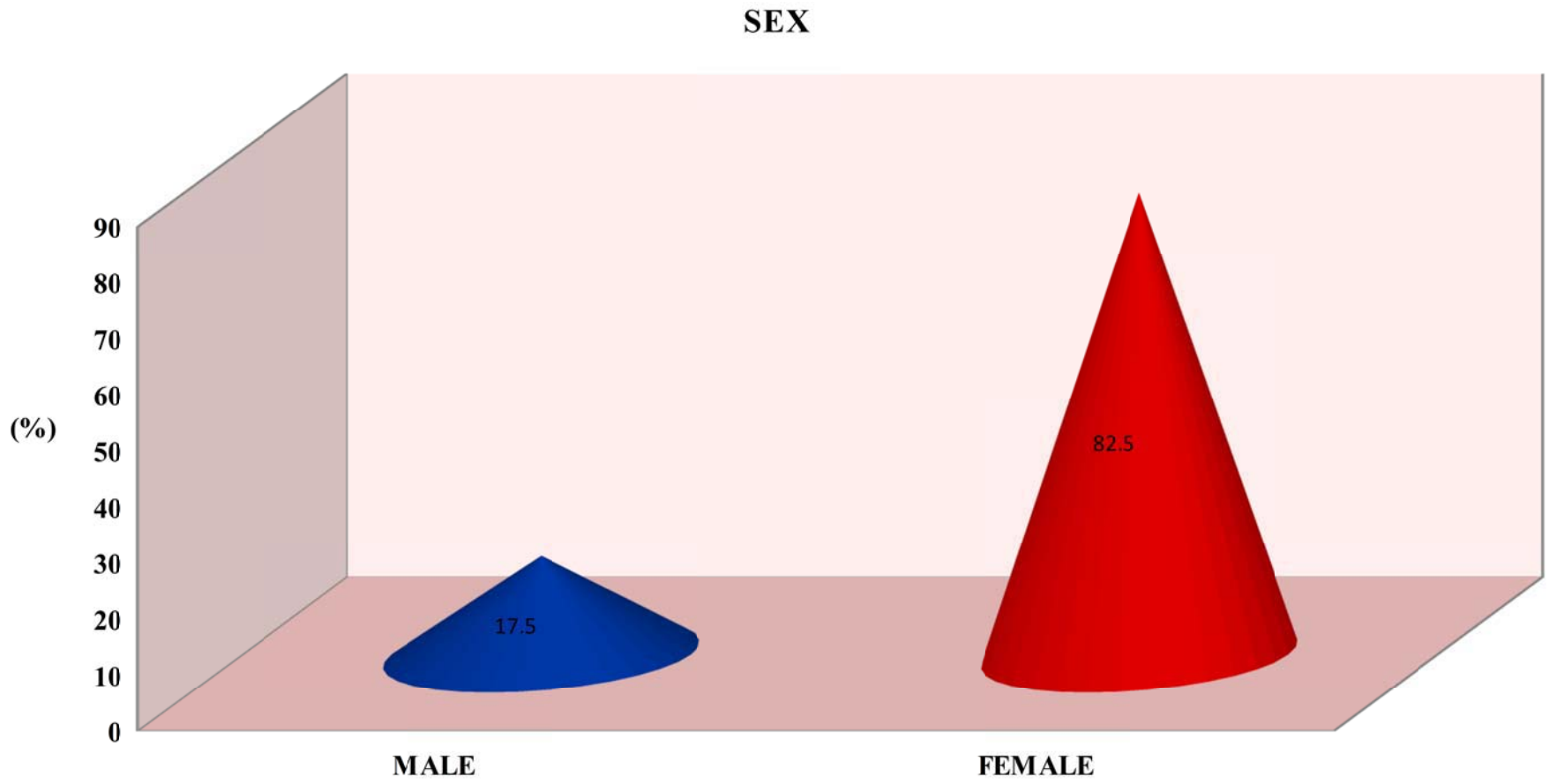


Fig 4.1.2: Distribution of subjects according to their sex

Table 4.1.3: Distribution of subjects according to their marital status

N=40

Sl. No.	Marital status	No. (40)	Percentage (%)
1.	Married	25	62.5%
2.	Unmarried	14	35%
3.	Divorced	1	2.5%
	Total	40	100%

Table 4.1.3 and figure 4.1.3 shows the distribution of primary school teachers according to their marital status. Among 40 primary school teachers 25(62.5%) were married, 14(35%) were unmarried and 1(2.5%) was divorced.

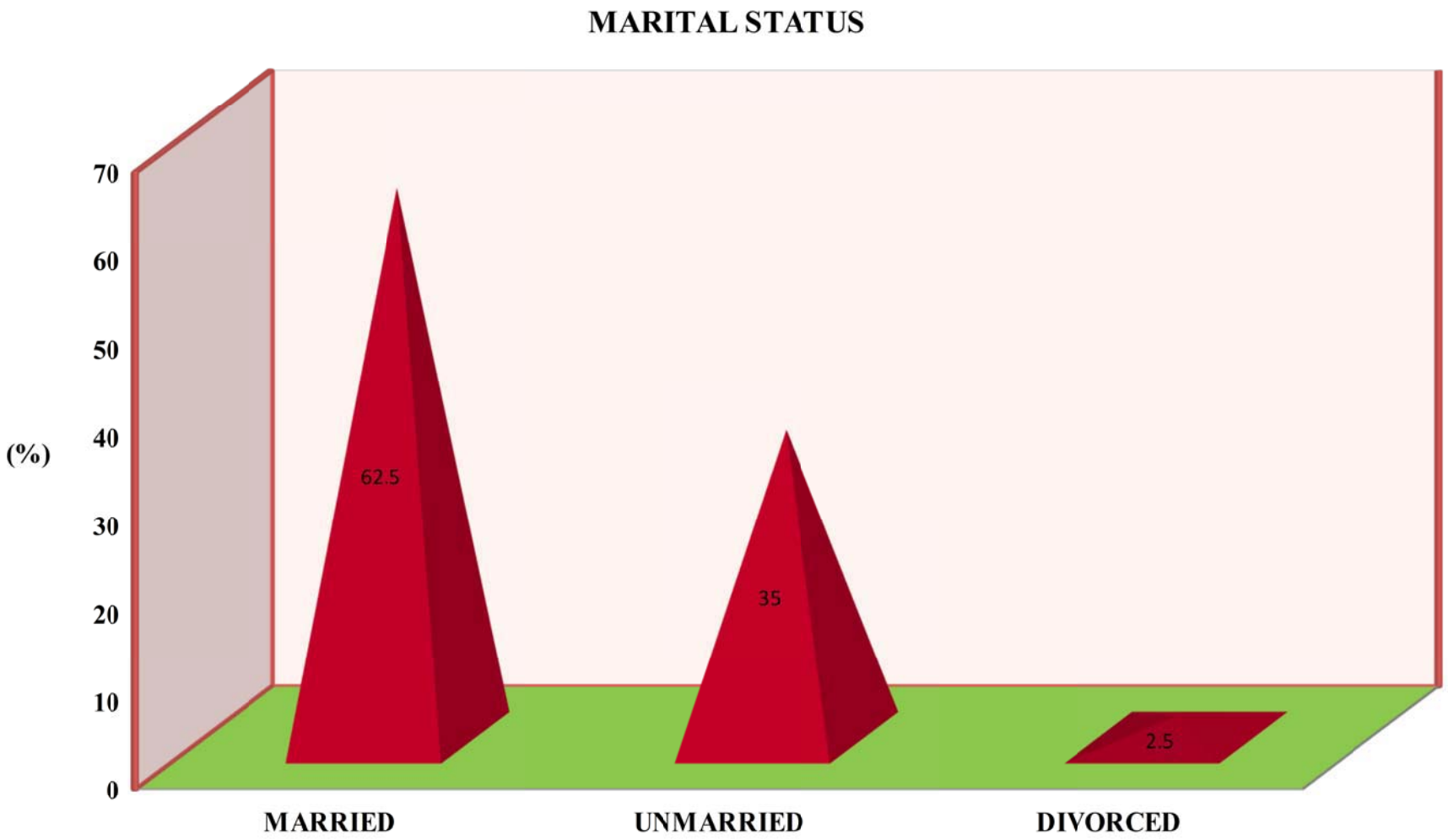


Fig 4.1.3: Distribution of subjects according to their marital status

Table 4.1.4: Distribution of subjects according to their educational status

N=40

Sl. No.	Education	No. (40)	Percentage (%)
1.	Teacher training (D.ED)	1	2.5%
2.	Graduate with B.ED	20	50%
3.	Post graduate with B.ED	13	32.5%
4.	Post graduate with M.ED	1	2.5%
5.	Any others (M.Phil)	5	12.5%
	Total	40	100%

Table: 4.1.4 and figure 4.1.4 shows the distribution of primary school teachers according to their educational status. Among the teachers, majority 20(50%) were graduate with B.ED, 13(32.5%) were post graduate with B.ED, 5 (12.5%) were any others (M.Phil), 1(2.5%) was post graduate with M.ED and the rest 1 (2.5%) had teacher training (D.ED) education.

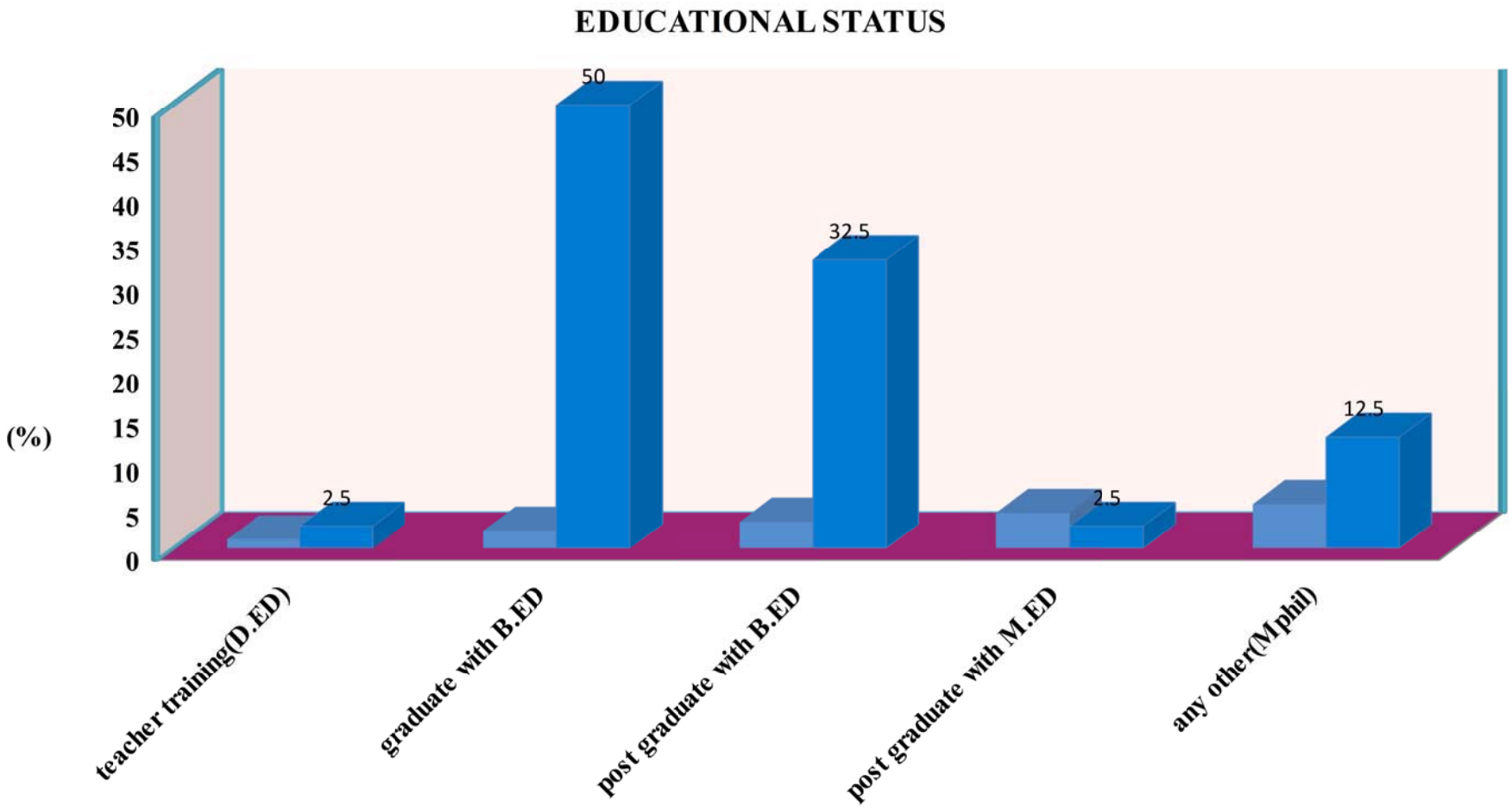


Fig 4.1.4: Distribution of subjects according to their educational status

Table 4.1.5: Distribution of subjects by their years of teaching experience

N=40

Sl. No.	Years of teaching experience	No. (40)	Percentage (%)
1.	Below 1 year	4	10%
2.	1-5 years	25	62.5%
3.	6-10 years	6	15%
4.	Above 10 years	5	12.5%
	Total	40	100%

Table: 4.1.5 and figure 4.1.5 shows the distribution of teachers according to their years of teaching experience. Among 40 primary school teachers, 25 (62.5%) had 1-5 years of teaching experience, 6 (15%) had 6-10 years of experience, 5(12.5%) had above 10 years experience and the rest 4 (10%) had below 1 year teaching experience.

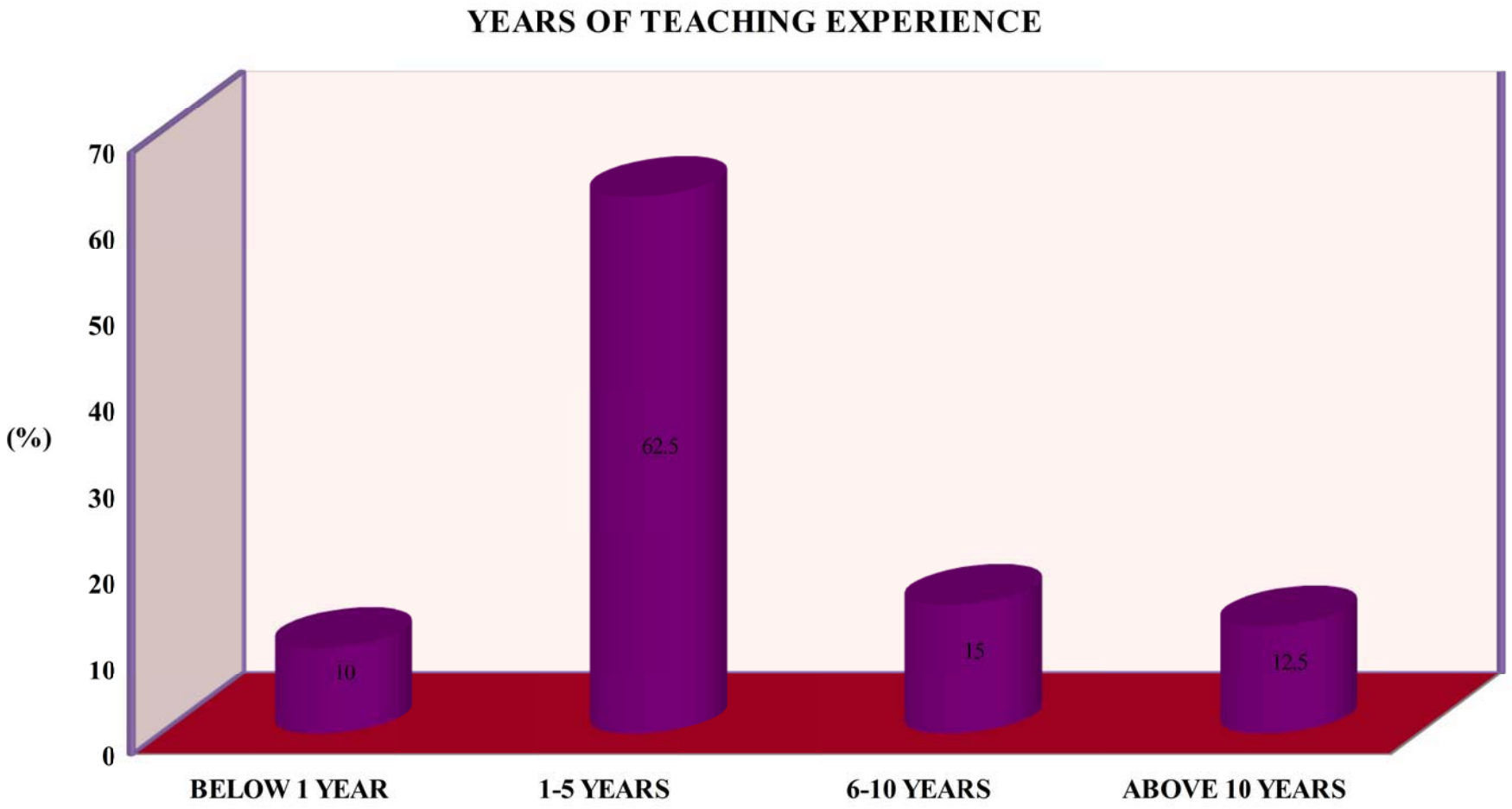


Fig 4.1.5: Distribution of subjects by their years of teaching experience

Table 4.1.6: Distribution of subjects according to their role in identifying learning disabilities of school children

N=40

Sl. No.	Teachers role in identifying learning disabilities	No. (40)	Percentage (%)
1.	yes	37	92.5%
2.	no	3	7.5%
	Total	40	100%

Table: 4.1.6 and figure 4.1.6 shows the distribution of teachers according to their role in identifying learning disabilities of school children. 37(92.5%) believes that teachers play an important role in identifying learning disabilities of school children, and the rest 3(7.5%) believes that teachers do not play an important role in identifying learning disabilities of school children.

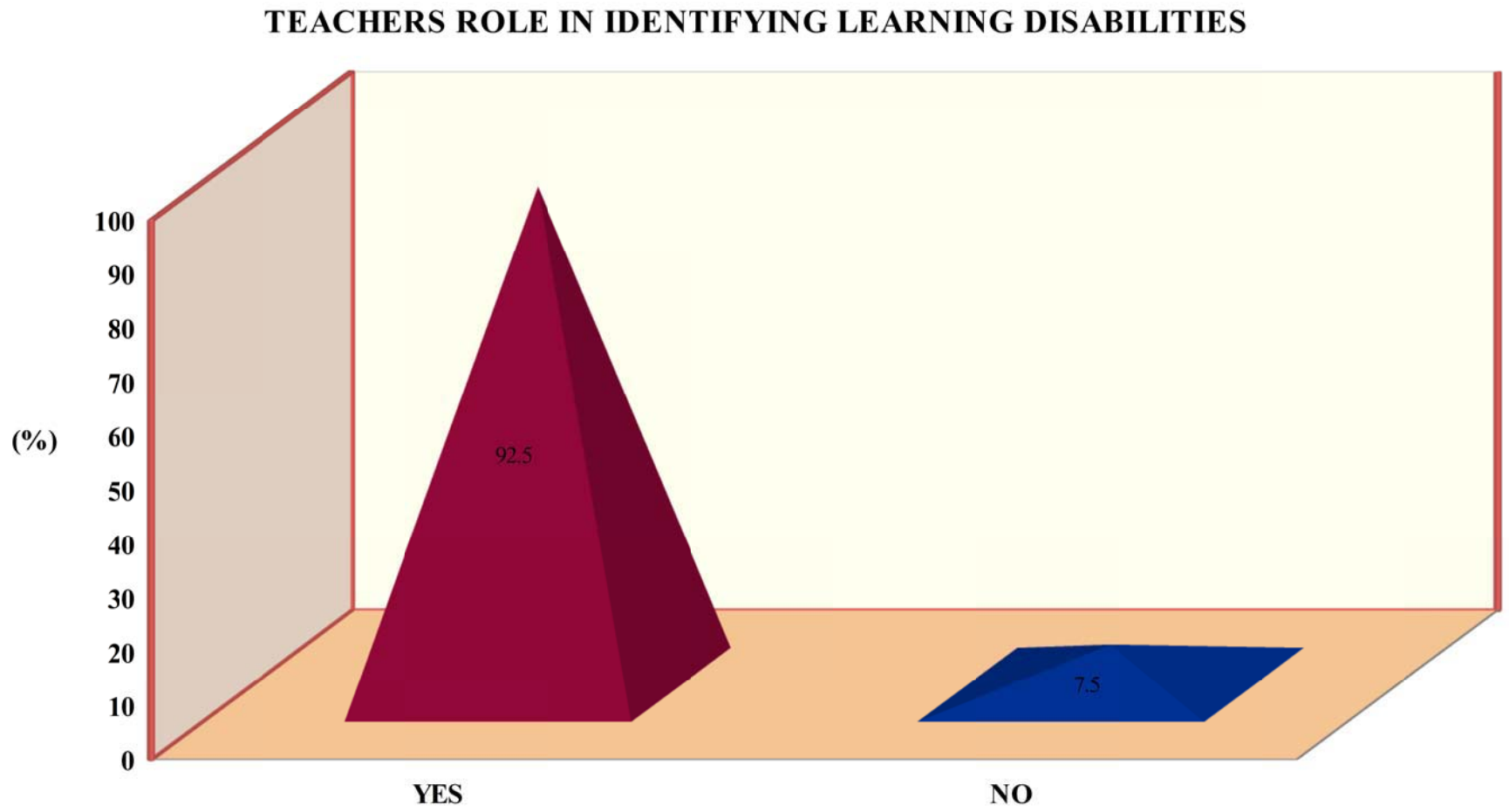


Fig 4.1.6: Distribution of subjects according to their role in identifying learning disabilities of school children

Table 4.1.7: Distribution of subjects according to their previous exposure

N=40

Sl. No.	Previous exposure	No. (40)	Percentage (%)
1.	yes	8	20%
2.	no	32	80%
	Total	40	100%

Table: 4.1.7 and figure 4.1.7 shows the distribution of teachers according to their previous exposure. Out of 40 primary school teachers, 32(80%) were not exposed to learning disabilities and the rest 8(20%) were exposed to learning disabilities.

PREVIOUS EXPOSURE

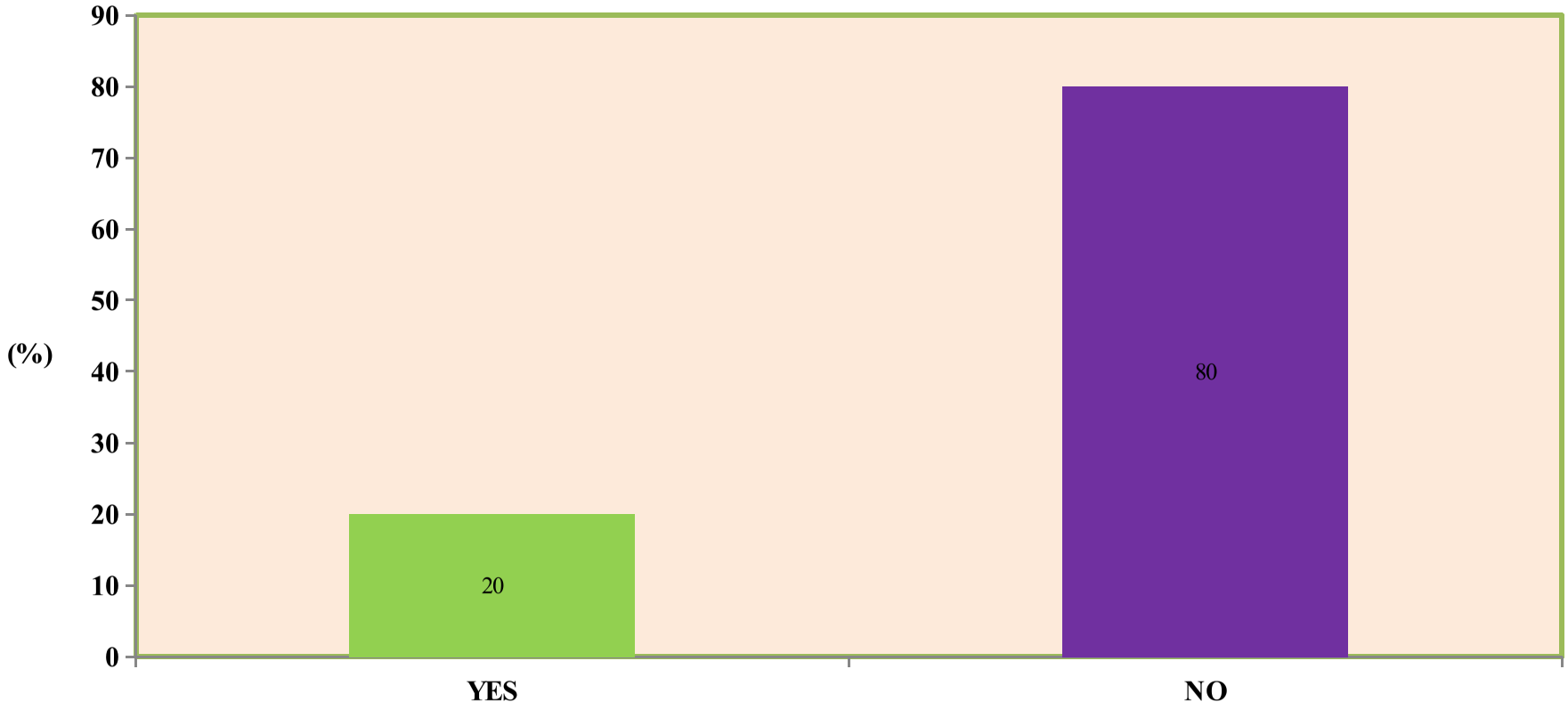


Fig 4.1.7: Distribution of subjects according to their previous exposure

SECTION – II

ASSESSMENT OF KNOWLEDGE LEVEL REGARDING LEARNING DISABILITIES OF SCHOOL CHILDREN AMONG PRIMARY SCHOOL TEACHERS BEFORE VIDEO TEACHING PROGRAMME

Table 4.2.1: Pretest knowledge level regarding learning disabilities of school children among primary school teachers

N=40

Knowledge	No	%
Inadequate (<50%)	32	80%
Moderate (50-75%)	8	20%
Adequate (>75%)	0	0
Total	40	100

Table 4.2.1 and figure 4.2.1 shows the pretest knowledge level of primary school teachers regarding learning disabilities, 32(80%) had inadequate knowledge level, 8(20%) had moderate level of knowledge and none of them had adequate level of knowledge regarding learning disabilities of school children.

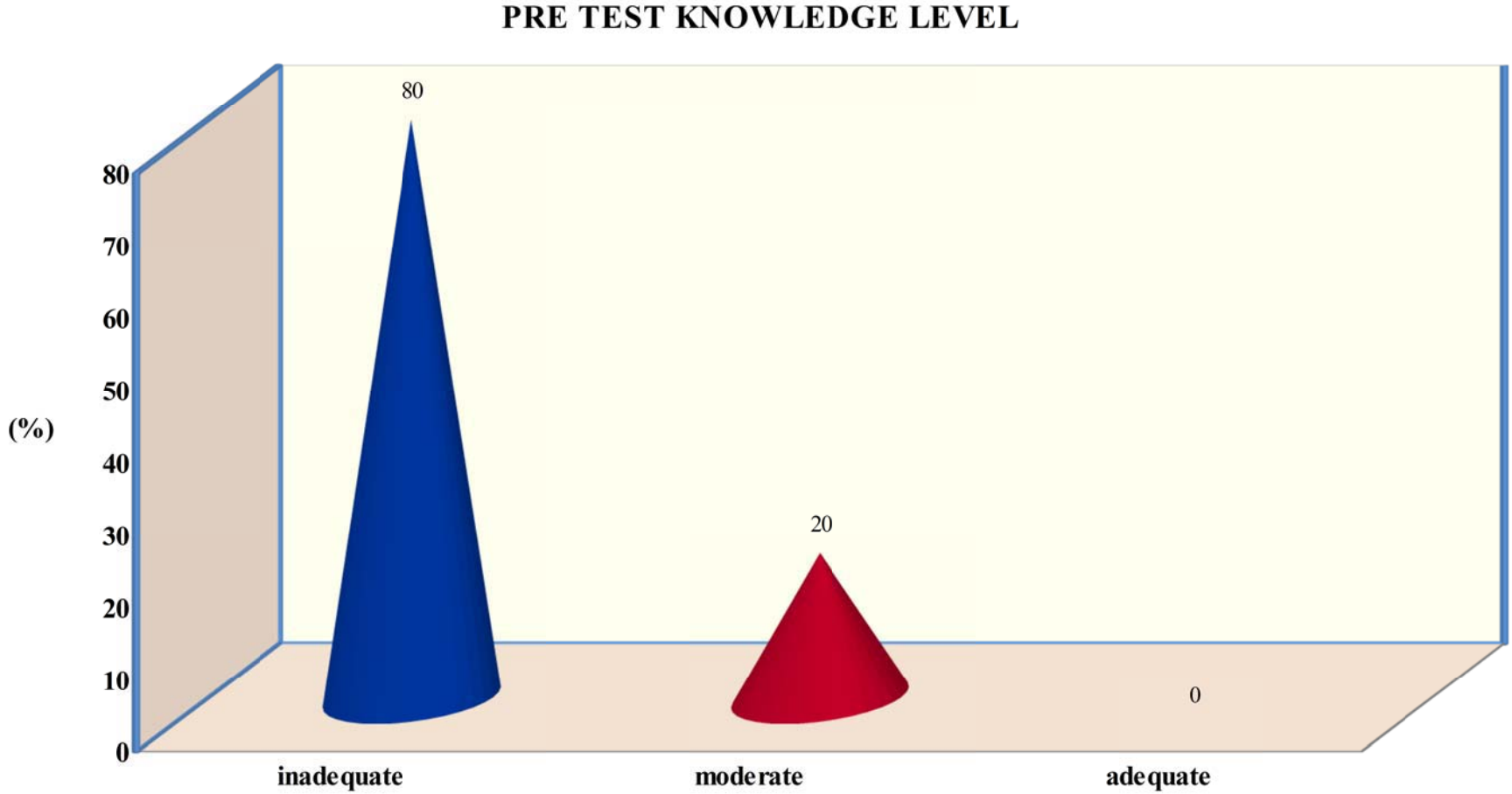

PRE TEST KNOWLEDGE LEVEL
(%)
80
70
60
50
40
30
20
10
0
80
20
0
inadequate
moderate
adequate

Figure 4.2.1: Pretest knowledge level regarding learning disabilities of school children among primary school teachers

Table 4.2.2: Pretest Mean knowledge score regarding learning disabilities of school children among primary school teachers.

N=40

Aspects	**Max score**	**Range score**	**Primary school teachers knowledge**		
			Mean	**Mean %**	**SD**
Knowledge	40	7 - 26	16.05	40.125%	4.934

Table 4.2.2. Shows that mean pretest knowledge score of primary school teachers regarding learning disabilities was found to be (40.125%) with SD value of 4.934.

SECTION-III

ASSESSMENT OF KNOWLEDGE LEVEL REGARDING LEARNING DISABILITIES OF SCHOOL CHILDREN AMONG PRIMARY SCHOOL TEACHERS AFTER ADMINISTRATION OF VIDEO TEACHING PROGRAMME

Table 4.3.1: Post-test knowledge level regarding learning disabilities of school children among primary school teachers.

N=40

S. No	Knowledge	Primary school teachers	Knowledge
		Number	Percentage (%)
1	Inadequate	0	0
2	Moderate	11	27.5%
3	Adequate	29	72.5%
	TOTAL	40	100%

Table 4.3.1 and figure 4.3.1 Shows that the primary school teachers' knowledge level reveals inadequate moderate and adequate level. 29(72.5%) had adequate level of knowledge, 11(27.5%) had moderate level of knowledge and none of them had inadequate level of knowledge regarding learning disabilities of school children.

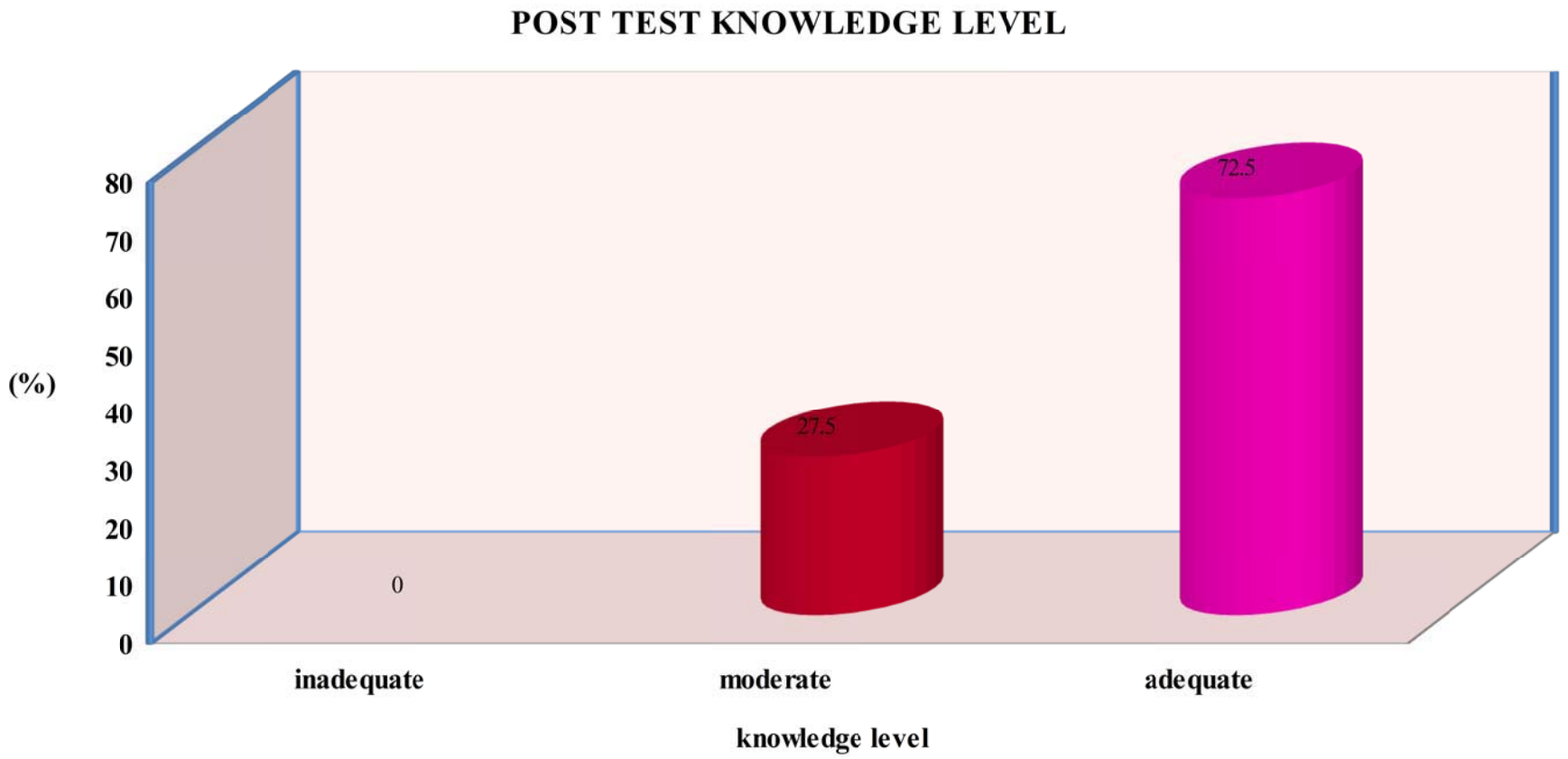

POST TEST KNOWLEDGE LEVEL
80
70
60
50
40
30
20
10
0
(%)
0
27.5
72.5
inadequate
moderate
adequate
knowledge level

Figure 4.3.1: post test knowledge level regarding learning disabilities of school children among primary school teachers

Table 4.3.2 post test mean knowledge score regarding learning disabilities of school children among primary school teachers

N=40

Aspect	**Max score**	**Range score**	**Primary school teachers knowledge**		
			Mean	**Mean %**	**SD**
Post test	40	24-38	32.475	81.175%	3.986

Table 4.3.2 shows that the primary school teachers post test mean knowledge score regarding learning disabilities of school children was found to be (81.175%) with SD value of 3.986.

COMPARISON OF KNOWLEDGE LEVEL REGARDING LEARNING DISABILITIES OF SCHOOL CHILDREN AMONG PRIMARY SCHOOL TEACHERS BEFORE AND AFTER VIDEO TEACHING PROGRAMME

This part of report deals with analysis and interpretation of the data collected to evaluate the effectiveness of video teaching programme on learning disabilities of school children.

This is organized in two sub heading

- Description and comparison of pretest and post-test scores
- Testing of research hypothesis

Table 4.4.1: pre-test and post test knowledge level regarding learning disabilities of school children among primary school teachers

N=40

S. No	Knowledge level	Pretest		Post test	
		No	%	No	%
1.	Inadequate (<50%)	32	80%	0	0
2.	Moderate (50-75%)	8	20%	11	27.5%
3.	Adequate (>75%)	0	0	29	72.5%
	Total	40	100%	40	100%

Table 4.4.1and figure 4.4.1 shows that the comparison of value of pretest and post test knowledge score on learning disabilities of school children among primary school teachers. In pre-test 32(80%) respondents were belong to inadequate knowledge level, 8(20%) respondents were belong to moderate knowledge level and none of them have adequate knowledge level. In post test 29(72.5%) respondents were belong to adequate level of knowledge, 11(27.5%)

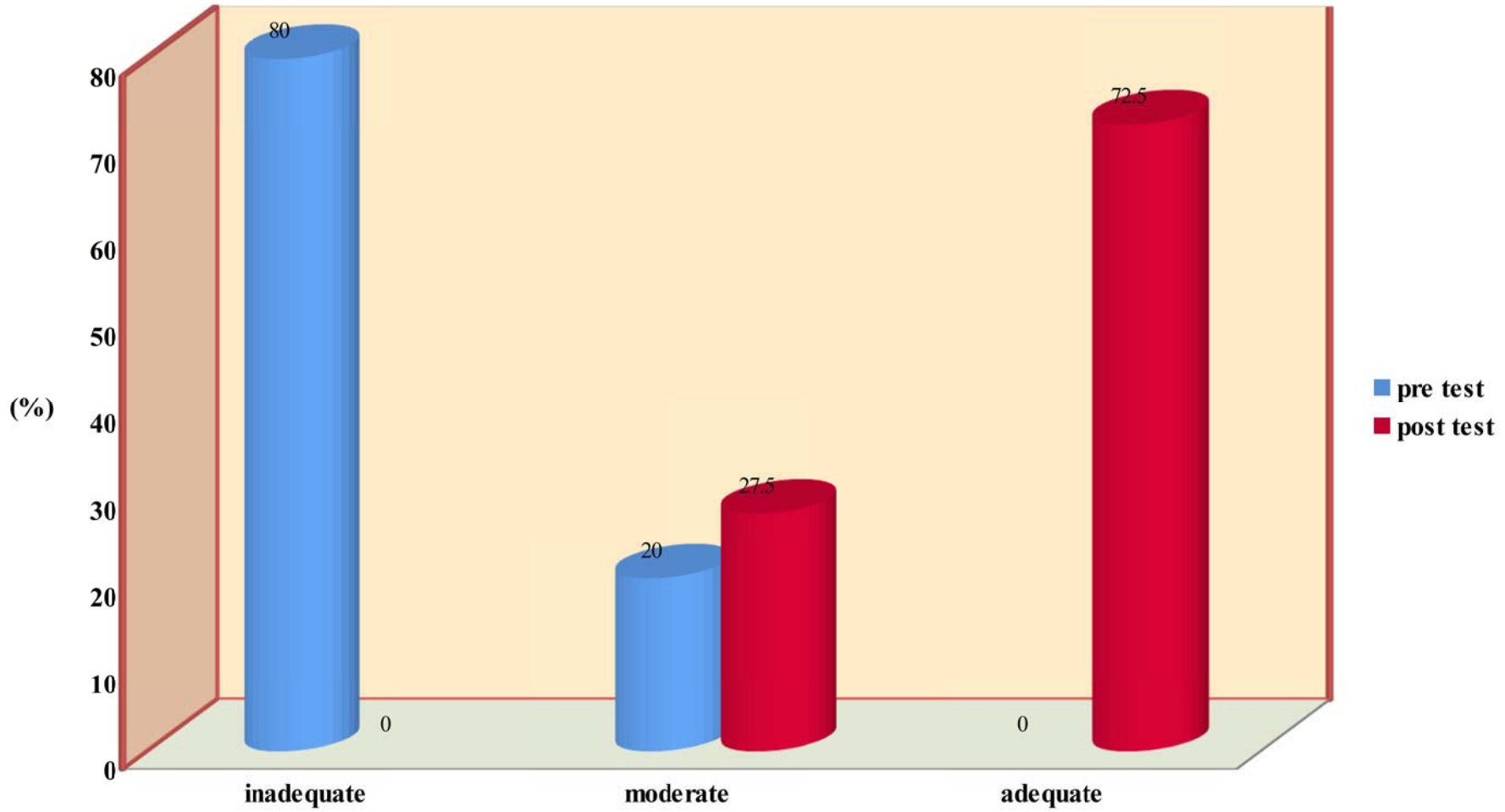


Figure 4.4.1: pre-test and post test knowledge level regarding learning disabilities of school children among primary school teachers

Table 4.4.2: pretest and post test mean knowledge score regarding learning disabilities of school children among primary school teachers

N=40

Aspect	**Max score**	**Range score**	**Respondents knowledge**			**Paired t-test**
			Mean	**Mean %**	**SD**	
Pre test	40	7-26	16.05	40.125%	4.934	16.387*
Post test	40	24-38	32.475	81.175%	3.986	
Enhancement	40	17-12	16.425	41.05%	0.948	

Table and figure 4.4.2 shows the mean knowledge score of the primary school teachers in pretest and post test. Post test mean knowledge score was found to be 81.175% and SD (3.986). Moreover, the pretest knowledge score was (40.125%) and SD (4.934). It reveals that the post test mean knowledge score were found higher than the pre-test knowledge score.

The statistical paired 't' test value is 16.387. Therefore there exists a statistical significance in the enhancement score indicating the impact of effectiveness of video teaching programme among the respondents.

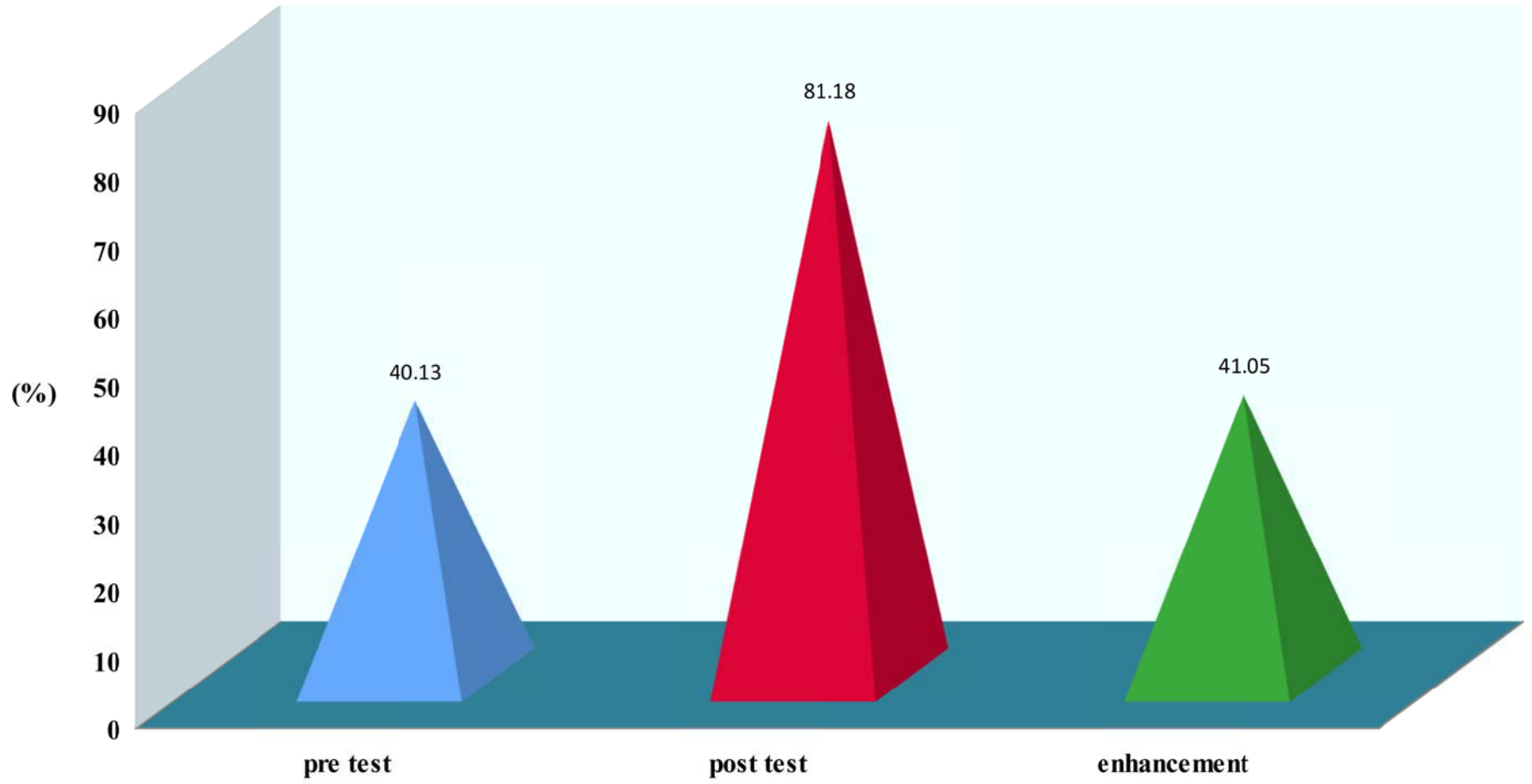

90
80
70
60
50
40
30
20
10
0
(%)
40.13
81.18
41.05
pre test
post test
enhancement

Figure 4.4.2: pretest and post test mean knowledge score regarding learning disabilities of school children among primary school teachers

Examining the effectiveness of video teaching programme and testing of the hypothesis

In order to determine the effectiveness of video teaching programme, following research hypothesis was formulated:

- H_{1}- There will be a significant difference between the mean pre-test knowledge score and the mean post test knowledge score regarding learning disabilities of school children among primary school teacher
- Null hypothesis (H_0): There will not be a significant difference between the mean pre-test knowledge scores and the mean post test knowledge scores regarding learning disabilities of school children among primary school teachers.

Table 4.4.3: Outcomes of paired‘t’ test analysis

S.No	Variables	Differences in mean	t- value	df	p- value
1	knowledge	41.05	16.387	78 (t=1.96)	0.05

In the view of interfering the statistical significance of increase in the knowledge of primary school teachers regarding learning disabilities, the paired‘t’ test was worked out to compare the pre and post test knowledge. The statistical hypothesis was postulated. The differences in mean sore of pretest and post test knowledge score was observed to be 41.05% which was statistically significant (t-value=16.387*, df =78) at 0.05 level, i.e. highly significant. It implies the effectiveness of video teaching programme in gaining knowledge regarding learning disabilities of school children among primary school teachers. Thereby, the research hypothesis H-1 is

SECTION - V

ASSOCIATION BETWEEN PRE TEST KNOWLEDGE AND SOCIO-DEMOGRAPHIC VARIABLES OF PRIMARY SCHOOL TEACHERS

In this section the researcher is interested to bring out association between pre-test knowledge of primary school teachers and demographic variables such as age, sex, marital status, educational status, years of teaching experience, role of teacher in identifying learning disabilities and previous experience in identifying learning disabilities.

In order to determine the association chi-square analysis was used and the following hypothesis was formulated.

H_2- There will be a significant relationship between pre-test knowledge score with selected demographic variables such as age, sex, marital status, educational status, years of teaching experience, role of teacher in identifying learning disabilities and previous experience in identifying learning disabilities.

Table 4.5.1. Association between pretest knowledge and socio demographic variables of primary school teachers.

N=40

SL. NO	Demographic variable	category	Pretest knowledge				X^2 value
			Inadequate		Moderate		
			NO (32)	%	NO (8)	%	
1	Age	≤25 years 25-30 years 31-35 years 36 years and above	10 15 4 3	25% 37.5% 10% 7.5%	0 2 3 3	0 5% 7.5% 7.5%	8.88* Df=3ns (t= 7.82)
2	Sex	Male female	6 26	15% 65%	1 7	2.5% 17.5%	0.172 Df=1ns (t= 3.84)
3	Marital status	Married Unmarried	18 13	45% 32.5%	7 1	17.5% 2.5%	2.696 Df=2ns

4	Educational status	Teacher training(D.ED) Graduate with B.ED Post graduate with B.ED Post graduate with M.ED Any others(M.Phil)	1 19 10 0 2	2.5% 47.5% 25% 0 5%	0 1 3 1 3	0 2.5% 7.5% 2.5% 7.5%	12.138* Df=4ns (t= 9.49)
5	Years of teaching experience	Below 1 year 1-5 year 6-10 year Above 10 year	4 23 3 2	10% 57.5% 7.5% 5%	0 2 3 3	0 5% 7.5% 7.5%	11.625* Df=3ns (t= 7.82)
6	Role of teacher in identifying learning disabilities	Yes No	30 2	75% 5%	7 1	17.5% 2.5%	0.358 Df=1ns (t= 3.84)
7	Previous experience in	Yes	3	7.5%	5	12.5%	11.288*

Table 4.5.1. Presents substantive summary of chi-square analysis. It was used to bring out the relationship between the pre test knowledge score and the selected socio demographic variables of primary school teachers such as age, sex, marital status, educational status, years of teaching experience, role of teachers in identifying learning disabilities and previous experience in identifying learning disabilities.

The variables such as age, educational status, years of teaching experience and previous experience in identifying learning disabilities are significantly associated with pre-test knowledge score. Other demographic variables such as sex, marital status and role of teacher in identifying learning disabilities were not significantly associated with pre-test knowledge. Hence the research hypothesis H-2 is accepted.

The primary school teachers who were in the age ≤25 years, 10(25%) had inadequate knowledge. Primary school teachers who were in the age between 25-30 years, 15(37.5%) had inadequate knowledge and 2(5%) had moderate knowledge. Primary school teachers who were in the age between 31-35 years, 4(10%) had inadequate knowledge and 3(7.5%) had moderate knowledge. Primary school teachers who were in the age 36 years and above, 3(7.5%) had inadequate knowledge and 3(7.5%) had moderate knowledge. The chi-square test value for association between age and pretest knowledge level was 8.88 which is significant chi-square [P, 0.05, 3df] = 7.82. It inferred that there was significant association between age and pretest knowledge level.

The primary school teachers who were with teacher training, 1(2.5%) had inadequate knowledge. The subjects who were completed graduate with B.ED, 19(47.5%) had inadequate knowledge and 1(2.5%) had moderate knowledge. Primary school teachers who were post graduate with B.ED 10(25%) had inadequate knowledge and 1(2.5%) had moderate knowledge. Primary school teachers who were post graduate with M.ED 1(2.5%) had moderate knowledge. Primary school teachers who were in any other category (M.Phil), 2(5%) had inadequate knowledge and 3(7.5%) had moderate knowledge. The chi-square test value for association

inadequate knowledge level and 2(5%) had moderate knowledge level. The primary school teachers who had 6-10 years of teaching experience, 3(7.5%) had inadequate knowledge level and 3(7.5%) had moderate knowledge level. The primary school teachers who had above 10 years teaching experience, 2(5%) had inadequate knowledge level and 3(7.5%) had moderate knowledge level. The chi-square test value for association between years of teaching experience and pretest knowledge level was 11.625 which was significant chi-square [P, 0.05, 3df] = 7.82. It is inferred that there was significant association between years of teaching experience and pretest knowledge level.

The primary school teachers who had previous experience in identifying learning disabilities, 3(7.5%) had inadequate knowledge level and 5(12.5%) had moderate knowledge level. The primary school teachers who had no previous experience in identifying learning disabilities, 29(72.5%) had inadequate knowledge level and 3(7.5%) had moderate knowledge level. The chi-square test value for association between previous experience in identifying learning disabilities and pretest knowledge level was 11.288 which was significant chi-square [P, 0.05, 1df] = 3.84. It is inferred that there was significant association between previous experience in identifying learning disabilities and pretest knowledge level.

Other socio demographic variables such as sex, marital status and role of teachers in identifying learning disabilities were not significantly associated with the knowledge score. Hence the research hypothesis H-2 was accepted.

DISCUSSION

The basic aims of the present study was to evaluate the effectiveness of video teaching programme on knowledge regarding learning disabilities of school children and to find out the relationship between the pretest knowledge scores with selected demographic variables.

- Association between socio demographic variables with the pre test knowledge score.

Findings related to socio demographic variables of the primary school teachers

- Out of 40 primary school teachers 17(42.5%) were between 26-30 years, 10(25%) were below the age group of 25 years, 7(17.5%) were between the age group of 31-35 years and 6(15%) were between 36 years and above.
- Most of the primary school teachers, 33(82.5%) were females, 7(17.5%) were males.
- Among 40 primary school teachers, 25(62.5%) were married, 14(35%) were unmarried and 1(2.5%) was divorced.
- According to the educational status out of 40 primary school teachers, 20(50%) were graduate with B.ED, 13(32.5%) were post graduate with B.ED, 5(12.5%) were any other category (M.Phil), 1(2.5%) were post graduate with M.ED and 1(2.5%) were teacher training (D.ED).
- Among 40 primary school teachers, 25(62.5%) have 1-5 years of teaching experience, 6(15%) have 6-10 years teaching experience, 5(12.5%) have above 10 years experience and 4(10%) have below 1 year of teaching experience.
- Most of the primary school teachers, 37(92.5%) believes that teachers play an important role in identifying learning disabilities, 3(7.5%) believes that teachers does not play an important role in identifying learning disabilities.
- Most of the primary school teachers, 32(80%) had no previous experience in identifying learning disabilities and 8(20%) had previous experience in identifying learning disabilities.

Analysis of effectiveness of video teaching programme

The post test Mean score percentage (81.175%) of knowledge on learning disabilities were comparatively more than their pretest knowledge score (40.125%). It confirms that, there was

Association between socio demographic variables and pretest knowledge score

The present study reveals that, there is an association between pre test knowledge and demographic variables such as age, educational status, years of teaching experience and previous experience in identifying learning disabilities. But there was no association between pre test knowledge and other socio demographic variables such as sex, marital status and role of teacher in identifying learning disabilities.

SUMMARY

This chapter dealt with the analysis and interpretation of data collected from primary school teachers regarding learning disabilities of school children before and after administration of video teaching programme. It also dealt with the discussion of results.

SUMMARY, FINDINGS, CONCLUSION, IMPLICATIONS & RECOMMENDATIONS

SUMMARY, FINDINGS, CONCLUSION, NURSING IMPLICATIONS AND RECOMMENDATIONS

This chapter deals with summary of the study, its findings, conclusions, nursing implications and recommendations.

SUMMARY OF THE STUDY

The primary aim of the present study was to evaluate the effectiveness of video teaching programme on knowledge regarding learning disabilities of school children among primary school teachers.

OBJECTIVES OF THE STUDY

- To assess the knowledge of primary school teachers regarding learning disabilities of school children before the administration of video teaching programme.
- To assess the knowledge of primary school teachers regarding learning disabilities of school children after the administration of video teaching programme.
- To compare the pre-test and post-test score.
- To find out the association between pre-test knowledge score with selected socio-demographic variables.

RESEARCH HYPOTHESIS

- H_1- There will be a significant difference between the mean pre-test knowledge score and the mean post test knowledge score regarding learning disabilities of school children among primary school teachers.
- H_2- There will be a significant relationship between pre-test knowledge score with selected demographic variables such as age, sex, marital status, educational status, years of teaching experience, role of teacher in identifying learning disabilities and previous experience in identifying learning disabilities.

Quasi-experimental research design with one group pre-test post-test design was adopted for this study. As sample, 40 primary school teachers were selected from Mahendra Matriculation Higher Secondary School at Elayampalayam, Namakkal district.

The instrument developed and used for the study was semi-structured questionnaire which comprised of section A and section B. Section A consist of 7 items related to demographic variables and section B consist of 40 questions related to learning disabilities of school children.

On the basis of experts judgment the content validity of the tool was established.

The video teaching programme was formulated by expert's opinion. It consists of definition, incidence, causes, types, clinical features, how to identify different types of learning disabilities and the role of teacher in management of learning disabilities of school children. It was prepared to improve the knowledge of primary school teachers regarding learning disabilities of school children.

For conducting pilot study, the investigator administered semi-structured questionnaire to primary school teachers working in AVVAI KSR Matriculation School, Tiruchengode. The reliability of the tool was r=0.94 established by test retest method where Karl Pearson's correlation coefficient formula was used. The instruments were found to be reliable and feasible. The purpose of the study was:

- To find out the feasibility of conducting final study.
- To determine the method of statistical analysis.
- To test the tool

The final study was conducted in the month of June. By convenience sampling technique 40 primary school teachers were selected from Mahendra Matriculation Higher Secondary School at Elayampalayam, Namakkal district. Pretest was conducted to assess the knowledge regarding learning disabilities and video teaching programme was administered. After 7 days post test was

The major findings of the study are summarized as follows

Findings related to socio demographic variables

- Out of 40 primary school teachers 17(42.5%) were between 26-30 years, 10(25%) were below the age group of 25 years, 7(17.5%) were between the age group of 31-35 years and 6(15%) were between 36 years and above.
- Most of the primary school teachers, 33(82.5%) were females, 7(17.5%) were males.
- Among 40 primary school teachers, 25(62.5%) were married, 14(35%) were unmarried and 1(2.5%) was divorced.
- According to the educational status out of 40 primary school teachers, 20(50%) were graduate with B.ED, 13(32.5%) were post graduate with B.ED, 5(12.5%) were any other category (M.Phil), 1(2.5%) were post graduate with M.ED and 1(2.5%) were teacher training (D.ED).
- Among 40 primary school teachers, 25(62.5%) have 1-5 years of teaching experience, 6(15%) have 6-10 years teaching experience, 5(12.5%) have above 10 years experience and 4(10%) have below 1 year of teaching experience.
- Most of the primary school teachers, 37(92.5%) believes that teachers play an important role in identifying learning disabilities, 3(7.5%) believes that teachers does not play an important role in identifying learning disabilities.
- Most of the primary school teachers, 32(80%) had no previous experience in identifying learning disabilities and 8(20%) had previous experience in identifying learning disabilities.

Analysis of effectiveness of video teaching programme

The pretest result shows that 32(80%) of respondents had inadequate level of knowledge, 8(20%) had moderate level of knowledge and none of them had adequate knowledge level. In the post test 29(72.5%) had adequate level of knowledge, 11(27.5%) had moderate level of knowledge and none of the teachers had inadequate knowledge level.

The paired ‘t’ test analysis of the pre test and post test knowledge $t=16.387(p<0.05)$ was highly significant. This result evidently supports the effectiveness of video teaching programme in promoting the knowledge regarding learning disabilities of school children.

Relationship between socio-demographic variables and pretest knowledge score

The present study revealed that there was association between pre test knowledge and demographic variables such as age, educational status, years of teaching experience and previous experience in identifying learning disabilities. But there was no association between pretest knowledge and other socio demographic variables such as sex, marital status and role of teacher in identifying learning disabilities.

CONCLUSION

The following conclusions are drawn from the findings of the study; none of the primary school teachers had adequate knowledge regarding learning disabilities before administering video teaching programme. After administration of the video teaching programme, the knowledge score was improved. The video teaching programme was found to be effective in terms of gain in knowledge. Therefore, the video teaching programme helped to improve the knowledge of primary school teachers regarding learning disabilities of school children.

NURSING IMPLICATIONS

The findings of the study have implications in different aspect of nursing profession that is nursing service, nursing education, nursing administration and nursing research.

Nursing service

Nursing practice is focusing on preventive aspect than the curative aspect. So community health practitioners are more appropriate personnel to improve the health of the public through the community health service. School health service is an important part of the community health service which helps the teachers to become aware about learning disabilities. Community health nurse can educate the teachers regarding learning disabilities and improve their ability to identify and manage the children with learning disabilities. Participation in the regular school health programme will be essential for improving their knowledge about learning disabilities.

Nursing education

- In-service education, workshop, discussion, seminar, skill training programme for identifying children with learning disabilities are some of the effective measures of increasing teachers participation in school health services.
- The teachers training curriculum should include the content on learning disabilities in school children and that should be implemented and revised periodically to improve knowledge and skill required by the teachers in the area of learning disabilities.
- The department of education can be provided the information on “learning disabilities in school children” for self learning of teachers. The booklet should comprise the pictorial explanation of causes, signs and symptoms and management, which is more effective and meaningful method of communication of information.

facilitated with school health nurse, which helps to concentrate on the mental ability of the children. Primary care clinician and psychologist also should be there to improve the mental capacity of the children by counseling and psychotherapy.

Nursing research

Nursing research has more scope in this area to improve teacher's knowledge in early identification of learning disabilities in school children and to find out the effectiveness of various teaching method for educating the teachers about learning disabilities. There is a need for extensive research in this area to identify the awareness of parents about learning disabilities. The findings of the study can be utilized to motivate further research in this area to identify the learning disabilities and various interventions to reduce the incidence of learning disabilities. The nurse researcher should be motivated to conduct more studies on learning disabilities of school children among teachers in various settings.

RECOMMENDATIONS

- The study can be replicated on large samples; thereby the findings can be generalized to large population.
- A similar study can be conducted with a control group.
- A comparative study can be conducted in two different schools with similar setup.
- A descriptive study can be conducted among teachers regarding learning disabilities.
- A similar study conducted using other teaching strategies.
- A study can be carried to assess the knowledge and attitude of parents regarding learning disabilities.
- A retrospective study can be conducted regarding causes of learning disabilities among school children.

SUMMARY

This chapter dealt with the summary, findings, conclusion, nursing implications and

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APPENDIX - A

LETTER SEEKING PERMISSION TO CONDUCT THE STUDY

From

Ms. JISSA MARY JOSE,

II year M.Sc (N) Student (Speciality-Child Health Nursing),

Vivekanandha College of Nursing,

Elayampalayam,

Namakkal (Dist).

Namakkal (Dist).

Respected Sir/Madam,

Sub: Permission to conduct study in Mahendra Matriculation Higher Secondary School

I am Ms. JISSA MARY JOSE, II year M.Sc Nursing Student (Child Health Nursing), Vivekanandha College of Nursing, Elayampalayam have undertaken a thesis on the topic, "**A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO TEACHING PROGRAMME ON KNOWLEDGE REGARDING LEARNING DISABILITIES OF SCHOOL CHILDREN AMONG PRIMARY SCHOOL TEACHERS IN A SELECTED SCHOOL AT ELAYAMAPALAYAM, NAMAKKAL DISTRICT.**"

OBJECTIVES OF THE STUDY:

- To assess the knowledge of primary school teachers regarding learning disabilities of school children before the administration of video teaching programme.
- To assess the knowledge of primary school teachers regarding learning disabilities of school children after the administration of video teaching programme.
- To compare the pre-test and post-test score.
- To find out the association between pre-test knowledge score with selected socio-demographic variables.

I would request you to kindly grant me permission to conduct the study in your school and also issue necessary instruction to the teachers to extend their co-operation to undertake my study successfully.

Thanking You,

Yours faithfully,

Ms. JISSA MARY JOSE

APPENDIX - B

LETTER GRANTING PERMISSION TO CONDUCT THE STUDY

From

The Principal,
Mahendra Matriculation Higher Secondary School,
Elayampalayam,
Tiruchengodu Taluk,
Namakkal (Dist)

With reference to the above letter, it has been informed that **Ms. JISSA MARY JOSE**, II[nd] year M.Sc. Nursing Student, Vivekanandha College of Nursing, Elayampalayam is granted permission to conduct her study on the topic "A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO TEACHING PROGRAMME ON KNOWLEDGE REGARDING LEARNING DISABILITIES OF SCHOOL CHILDREN AMONG PRIMARY SCHOOL TEACHERS IN A SELECTED SCHOOL AT ELAYAMPALAYAM, NAMAKKAL DISTRICT" in Mahendra Matriculation Higher Secondary School, Elayampalayam.

With Thanks,

Yours Sincerely,

The Principal

Mahendra Matriculation Higher Secondary School

Elayampalayam

Place:

Date:

APPENDIX – C

LETTER SEEKING CONSENT FROM THE PARTICIPANTS

Dear Participants,

I Ms. JISSA MARY JOSE, II year M.Sc Nursing, Vivekanandha college of nursing, Elayampalayam, have undertaken a thesis on the topic "A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO TEACHING PROGRAMME ON KNOWLEDGE

programme by answering my questionnaire honestly and state your willingness to participate in this study.

Thanking you,

Yours sincerely,

(Ms. Jissa Mary Jose)

CONSENT FROM THE PARTICIPANTS

I understand the purpose of this study and I am willing to participate in this study.

Signature:

Place:

Date:

APPENDIX – D

LETTER FOR VALIDATION OF THE TOOL

FROM

Ms. JISSA MARY JOSE,

II Year M.Sc nursing,

Vivekanandha College Of Nursing,

Elayampalayam,

THE PRINCIPAL,

Vivekananadha College Of Nursing,

Elayampalayam,

Namakkal district.

Subject: **Request for the content validation of the tool.**

Respected Sir/ Madam,

I, **Ms. JISSA MARY JOSE**, II year M.Sc Nursing Student, Vivekanandha College of Nursing, Elayampalayam, have taken a project on "A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO TEACHING PROGRAMME ON KNOWLEDGE REGARDING LEARNING DISABILITIES OF SCHOOL CHILDREN AMONG PRIMARY SCHOOL TEACHERS IN A SELECTED SCHOOL AT ELAYAMPALAYAM, NAMAKKAL DISTRICT" to be submitted to the Tamilnadu Dr.M.G.R.Medical University as a partial requirement for master degree of Nursing.

OBJECTIVES OF THE STUDY:

- To assess the knowledge of primary school teachers regarding learning disabilities of school children before the administration of video teaching programme.
- To assess the knowledge of primary school teachers regarding learning disabilities of school children after the administration of video teaching programme.
- To compare the pre-test and post-test score.
- To find out the association between pre-test knowledge score with selected socio-demographic variables.

To achieve the above mentioned objectives, I have prepared a semi- structured questionnaire and a video teaching programme. I request you to kindly give your valuable opinion and suggestions. Kindly sign the enclosed certificate of validation stating that you have validated the tool.

Place:

Date:

ENCLOSURES

1. Semi-structured questionnaire
2. Score key
3. Video Teaching Programme
4. Certificate of validation
5. Evaluation criteria of check list

SEMI-STRUCTURED

QUESTIONNAIRE

APPENDIX -E

SEMI STRUCTURED QUESTIONNAIRE

Section A- Socio demographic data of the teachers

1. Age

3. Marital status
    a) Married
    b) Unmarried
    c) Divorced
4. Educational status
    a) Teacher training (D.ED)
    b) Graduate with B.ED
    c) Post graduate with B.ED
    d) Post graduate with M.ED
    e) Any others , specify
5. Years of teaching experience?
    a) Below 1 years
    b) 1-5 years
    c) 6-10 years
    d) Above 10 years
6. Do you think teachers play an important role in identifying learning disabilities among school children?
    a) Yes
    b) No
7. Did you find any child with learning disabilities in your school?
    a) Yes
    b) No

    If yes, specify what measure you had taken to manage the child with learning disability?

Section B- Knowledge regarding learning disabilities

1. What is learning disability?
    a) Substantially below skill in reading, writing or mathematics
    b) Substantially below intelligence (IQ) level
    c) Impaired auditory or visual perception
    d) Impaired attention span
2. Which sex is more affected with learning disability?
    a) Boys
    b) Girls
    c) Both sex
3. Which age group children are more affected with learning disability?
    a) 1- 6 years

5. What are the factors causing learning disabilities after the birth of the child?
    a) Infection and malnutrition
    b) Cultural disadvantages
    c) Physically handicapped
    d) Visual and hearing disabilities
6. What are the factors causing learning disability during pregnancy?
    a) Genetic and chromosomal anomalies
    b) multiple pregnancy
    c) low maternal age
    d) maternal stress and anxiety
7. What are the causes of learning disabilities during labor time?
    a) Blood chemistry imbalances
    b) Radiation therapy to skull
    c) Difficult or abnormal labor
    d) Infection and malnutrition
8. What is the IQ level of learning disabled children?
    a) Normal IQ level
    b) Subnormal IQ level
    c) Low average IQ level
    d) Borderline IQ level
9. What is attention deficit hyperactivity?
    a) Increased attention and concentration
    b) Decreased interest in extracurricular activities
    c) Inappropriate degree of inattention and hyperactivity
    d) Decreased activity level
10. Which test is used to identify learning disability?
    a) Blood studies
    b) CT Scan and MRI
    c) Educational achievement test
    d) Electro encephalogram
11. Which of the following problems are not included in the diagnosis of learning disability?
    a) Visual hearing or motor disabilities
    b) Substantially below skill in reading and writing
    c) Poor spelling and paragraph organization
    d) Impairment in learning basic arithmetical skill

12. What is reading disorder?
    a) Rapid reading habits
    b) Reading achievement below the expected level

14. What are the features of reading disorder?
    a) Rapid reading habits
    b) Lack of fine motor control
    c) Slowness and mistakes in reading
    d) Difficulty in learning numerals
15. How to identify the children with reading disorder?
    a) Reading and intelligence test
    b) CT and MRI studies
    c) Blood studies
    d) Motor function test
16. What are the problems expected in a child with reading disorder?
    a) Child is more interested in extracurricular activities
    b) Child may become frustrated and cannot understand others
    c) Child is more talkative in front of peers
    d) Child have visual and hearing impairment
17. How to manage the children with reading disorder?
    a) Give more assignments to the student
    b) Give direct instruction and extra time
    c) Cut short the recreational activities
    d) Formulate strict rules and regulation for the child

18. What is the role of teacher in the management of reading disorder?
    a) Compare the child with other children in the class
    b) Give more home work and class room assignment
    c) Use tape recorder and other assistive technologies in teaching
    d) advise the child to complete reading task with in short time
19. Which of the following method can be used by a teacher to build reading fluency in a child with reading disorder?
    a) Provide guided repeated oral reading practice
    b) Conduct more multiple choice tests
    c) Be strict towards the child in the class room
    d) Advise the child to read more difficult reading materials
20. What is writing disorder?
    a) Difficulty in mathematical calculations
    b) Errors in simple arithmetic
    c) Difficulty in understanding language
    d) Write incorrect or misspelled words and grammar
21. What is the other name of writing disorder?
    a) Dyslexia

d) Disturbed sensory perception

23. How to identify children with writing disorder?
    a) Expressive written test
    b) Electro encephalogram
    c) ultrasonography
    d) Attitude test
24. How to manage children with writing disorder?
    a) Encourage proper grip, posture and paper positioning
    b) Give more writing assignments
    c) Being strict towards the child
    d) Conduct more written tests
25. What is the role of teacher in the management of writing disorder?
    a) Teach the use of a word processor
    b) Advise the parents to be strict towards the child
    c) Compel the child to complete writing activities rapidly
    d) Restrict the child from extracurricular activities
26. Which of the following measure can be used by a teacher in teaching a child with writing disorder?
    a) Give less time and more writing assignments
    b) Separate the child from other children in the class
    c) Give additional time and use writing paper with raised lines
    d) Increase the home work and class room assignment
27. What is mathematical disorder?
    a) Writing skills that are significantly below the expected level
    b) Impairment of numerical and arithmetic skills
    c) Impaired communication skills
    d) Substantially below intelligence level
28. What is the other name of mathematics disorder?
    a) Dyscalculia
    b) Aphasia
    c) Dyslexia
    d) Dysgraphia
29. What are the features of mathematics disorder?
    a) Many errors in simple mathematics
    b) Many mistakes in oral reading
    c) Errors in grammar and punctuation
    d) Difficulty in learning new vocabulary
30. How to identify children with mathematics disorder?
    a) Standardized spelling test

d) Converting written problems in to mathematical symbols

32. How to manage the children with mathematics disorder?
    a) spend extra time and provide examples related to real life situation
    b) provide more home and class work
    c) compare the child with other children
    d) inform the parents to be strict towards the child
33. What is the role of teacher in the management of mathematics disorder?
    a) Use flash cards, work book and computer games in teaching mathematics
    b) Advise the child to solve more complex mathematics problems
    c) Advise the parents to change the school
    d) Provide punishment for the child in making mistakes in calculation
34. Which of the following measure can be used by a teacher in teaching a child with mathematics disorder?
    a) Teach the child along with a large group of children
    b) Conduct more mathematics tests and assignments
    c) provide less time in completing the maths problems
    d) Classes limited to 6-8 children with special attention to high risk child
35. What is attentional skill?
    a) Observing operational symbols correctly
    b) Reading the sentence correctly
    c) Doing activities rapidly
    d) Completing task within the given time
36. Who are the members involved in the management of children with learning disability?
    a) Parents, educators and teachers
    b) Parents, siblings and community workers
    c) Parents, religious members and social workers
    d) Peers, social workers and physiotherapist
37. What is the role of teacher in management of learning disability?
    a) Instruct the parents to change the school
    b) Early identification and special attention to high risk child
    c) Give the child additional assignments and home work
    d) Develop strict discipline for the child
38. What are the associated problems of children with learning disabilities?
    a) Poor personal hygiene
    b) Increased interest in extracurricular activities
    c) Child become more talkative
    d) Low self esteem and depression
39. Which of the following is a main barrier in identifying learning disabilities in school

b) Learning disabled children's have poor IQ level
c) It is a lifelong condition without complete cure
d) Learning disabled children's cannot be successful in school

SCORE KEY

SL.NO	CORRECT RESPONSE	SCORE
1	A	1
2	A	1
3	B	1
4	D	1
5	A	1
6	A	1
7	C	1
8	A	1

12	**B**	**1**
13	**A**	**1**
14	**C**	**1**
15	**A**	**1**
16	**B**	**1**
17	**B**	**1**
18	**C**	**1**
19	**A**	**1**
20	**D**	**1**
21	**B**	**1**
22	**A**	**1**
23	**A**	**1**
24	**A**	**1**

27	**B**	**1**
28	**A**	**1**
29	**A**	**1**
30	**D**	**1**
31	**B**	**1**
32	**A**	**1**
33	**A**	**1**
34	**D**	**1**
35	**A**	**1**
36	**A**	**1**
37	**B**	**1**
38	**D**	**1**
39	**A**	**1**

The total score is 40
0-50% - Inadequate knowledge
51-75% - Moderate knowledge
75-100% - Adequate knowledge

VIDEO TEACHING PROGRAMME ON LEARNING DISABILITIES OF SCHOOL CHILDREN

APPENDIX- F

VIDEO TEACHING PROGRAMME ON LEARNING DISABILITIES OF SCHOOL CHILDREN

Name of the teacher	: Ms. Jissa Mary Jose, II year M.Sc (N)
Topic	: Learning disabilities of school children
Group	: Primary school teachers working in Mahendra Matriculation Higher Secondary School, Elayampalayam
Duration	: 30 minutes
Medium of instruction	: English
Method of teaching	: Lecture cum discussion
Audio visual aid	: Video teaching module
Place	: Mahendra Matriculation Higher Secondary School, Seminar hall

GENERAL OBJECTIVES

After the completion of video teaching programme the primary school teachers should gain adequate knowledge regarding learning disabilities of school children and develop positive attitude and skills in managing children with learning disabilities.

SPECIFIC OBJECTIVES

At the end of the video teaching programme, the primary school teachers will be able to

- Define learning disabilities
- Mention the incidence of learning disabilities
- Enumerate the causes of learning disabilities
- Describe the types of learning disabilities
- Specify the clinical features of learning disabilities
- Enlist the diagnostic measures to identify learning disabilities
- Explain the role of teacher in management of learning disabilities
- List down the team members involved in the diagnosis of learning disabilities

Time	Specific objectives	Content	Teachers activity	Learners activity	Av aids	Evaluation
		LESSON PLAN ON LEARNING DISABILITIES				
2 mts	Introduce the topic	**INTRODUCTION** Learning is popularly regard as the process of acquiring of new knowledge, behaviors, skills, values, preferences or understanding, and may involve synthesizing different types of information. A child who is experiencing problems or difficulties in mastering some aspects of his educational work might be termed as having learning difficulty. Learning difficulties/disabilities are problems that affect the brains ability to receive process, analyze or store information. Learning disabilities result in unexpected academic underachievement. Learning disabilities may coexist with other disorders such as attention, behavioral or emotional disorders, sensory impairment or other medical conditions.	Introducing the topic	Listening	Video teaching module	
2 mts	Define learning disabilities	**DEFINITION** National joint committee on learning disorders defines learning disorders as 'a heterogeneous group of disorder manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities'.	Explaining and questioning	Listening and answering	Video teaching module	What is learning disability?

Time	Specific objectives	Content	Teachers activity	Learners activity	Av aids	Evaluation
		Specific learning disability does not include learning problems that are primarily the result of visual, hearing or motor disabilities, of intellectual disabilities, of emotional disabilities, of environmental, cultural, or economic disadvantage.				
2 mts	Mention the incidence of learning disabilities	**INCIDENCE** ➢ In India around 13-14% of all school children suffer from learning disorders. ➢ The incidence of learning disabilities is more common in boys than girls. (20% excess in males) ➢ Learning disabilities are more prevalent in the age group of 6-12 years.	Explaining and questioning	Listening and answering	Video teaching module	Which age group is more commonly affected with learning disability?
4 mts	Enumerate the causes of learning disabilities	**CAUSES** There are preconceptual, prenatal, perinatal and post natal factors. **1.preconceptual factors** ➢ Genetic characteristics of the parents. **2.prenatal factors** ➢ Chromosomal anomalies ➢ Genetic disorders ➢ Maternal disorders and malnutrition ➢ Infection	Explaining and questioning	Listening and answering	Video teaching module	What are the causes of learning disabilities during pregnancy?

Time	Specific objectives	Content	Teachers activity	Learners activity	Av aids	Evaluation
		➢ Irradiation ➢ Immunological and toxicological damage ➢ Tobacco and alcohol use during pregnancy ➢ Drugs use during pregnancy **3.perinatal factors** ➢ Difficult or abnormal labor ➢ Birth injury ➢ Prematurity and low birth weight ➢ Gestational disorders ➢ Lack of oxygen to the fetus **4.post natal factors** ➢ Malnutrition of the child ➢ Infection ➢ Blood chemistry imbalances ➢ Ingestion of toxins ➢ Cerebral trauma ➢ Radiation therapy to the skull	Explaining and questioning	Listening and answering	Video teaching module	What are the causes of learning disabilities during delivery time?

Time	Specific objectives	Content	Teachers activity	Learners activity	Av aids	Evaluation
15 mts	Describe the types of learning disabilities	**TYPES OF LEARNING DISABILITIES** There are three subtypes of learning disorders identified ➢ Reading disorders(dyslexia) ➢ Disorder of written expression(dysgraphia) ➢ Mathematics disorders(dyscalculia) 1.**READING DISORDER (DYSLEXIA)** **Definition** Reading disorder is defined as reading achievement below the expected level for a child's age, education and intelligence with the impairment interfering significantly with academic success or the daily activities that involve reading.	Explaining and questioning	Listening and answering	Video teaching module	What are the types of learning disabilities?
	Specify the clinical features of reading disorder	**Clinical features** ❖ Trouble in making connection between letters and sounds and with spelling ❖ Poor recognition of written words ❖ Failure to fully understand what others are saying ❖ Delayed ability to speak ❖ Poor self expression	Explaining and questioning	Listening and answering	Video teaching module	What are the clinical features of reading disorder?

Time	Specific objectives	Content	Teachers activity	Learners activity	Av aids	Evaluation
		❖ Difficulty in learning new vocabulary ❖ Very slow oral reading ❖ Many mistakes in oral reading ❖ Slowness in learning songs and rhymes ❖ Slow reading as well as giving up on longer reading tasks ❖ Difficulty in understanding questions and following directions ❖ Poor spelling ❖ Difficulty in recalling numbers in sequence ❖ Trouble in distinguishing left from right ❖ Difficulty in organizing written and spoken language ❖ Trouble learning foreign languages ❖ Very poor comprehension of what has been read ❖ Failure to know the letters in his own name **How to identify reading disorder** ❖ Family assessment ❖ Reading test ❖ Memory test				
	Enlist the diagnostic measures to identify reading disorder		Explaining and questioning	Listening and answering	Video teaching module	What are the diagnostic measures to identify reading disorder?

Time	Specific objectives	Content	Teachers activity	Learners activity	Av aids	Evaluation
	Explain the role of teacher in management of reading disorder	❖ Psycho educational testing and educational assessment of achievement ❖ Intelligence test ❖ Standardized spelling test, written composition processing and use of oral language ❖ Judgment of the adequacy of pencil use ❖ Screening projective test include picture story tests and sentence completion **Role of teacher in management of reading disorder** ✓ Give extra time to complete school assignments. ✓ Direct instruction of the various components of reading that focus a child's attention to the connections between speech sounds and spelling. ✓ Provide different kinds of reading materials, especially material they find interest. ✓ Aid with note taking by giving students a fill in the blank or structured out line. ✓ Help with oral testing and other assessments. ✓ Use tape recorder and other assistive technologies. ✓ Provide positive and corrective feedback.	Explaining and questioning	Listening and answering	Video teaching module	What are the roles of teacher in management of reading disorder?

Time	Specific objectives	Content	Teachers activity	Learners activity	Av aids	Evaluation
		✓ Introduce important vocabulary before the students read a section ✓ Try not to have extra information on the board ✓ Leave assignments on the board for the entire day ✓ Have student located close to the board ✓ Alternatives to multiple choice tests(e.g. orally administered tests) ✓ Coexisting emotional and behavioral problems should be treated by appropriate psycho therapeutic means ✓ Parental counseling may be helpful ✓ The most effective method to build reading fluency is guided repeated oral reading, in which the child reads aloud repeatedly to a teacher, an adult or a peer and receives feedback. ✓ Provide a quite separate room for taking tests ✓ People with dyslexia and their families frequently consult their physician about unconventional approaches to the remediation of reading difficulties.	Explaining and questioning	Listening and answering	Video teaching module	

Time	Specific objectives	Content	Teachers activity	Learners activity	Av aids	Evaluation
		WRITING DISORDER (DYSGRAPHIA) **Definition** Dysgraphia is a neurological disorder characterized by writing disabilities. The disorder generally emerges when students are introduced to writing. They make inappropriately sized and spaced letters or write incorrect or misspelled words, in spite of thorough instruction. Disorder of written expression is characterized by writing skills that are significantly below the expected level for a child's age and intellectual capacity.	Explaining and questioning	Listening and answering	Video teaching module	What is dysgraphia?
	Specify the clinical features of dysgraphia	**Clinical features** ➢ Poor spelling ➢ Error in grammar and punctuation ➢ Poor hand writing and drawing capabilities ➢ Spelling errors ➢ Poor paragraph organization ➢ Poorly formed letters or numbers ➢ Increased or decreased speed of writing ➢ Cramped or awkward pencil grip and body position ➢ Mixing printed and cursive letter with in the same word	Explaining and questioning	Listening and answering	Video teaching module	What are the clinical features of dysgraphia?

Time	Specific objectives	Content	Teachers activity	Learners activity	Av aids	Evaluation

	Enlist the diagnostic measures to identify writing disorder	➢ Pain when writing ➢ Mixing lower and upper case letters with in the same word ➢ Difficulty with syntax(forming sentence or phrases) and grammar (using rules to write sentences) ➢ Difficulty thinking and writing at the same time, placing words in the wrong order ➢ Unfinished or omitted words **How to identify writing disorder** ➢ A qualified clinician must directly test the child ➢ Family assessment ➢ Physical assessment ➢ Expressive written test and educational testing ➢ Intelligence test ➢ Developmental test of visual –motor integration ➢ Standardized spelling tests	Explaining and questioning	Listening and answering	Video teaching module	What are the diagnostic measures to identify writing disorder?

Time	Specific objectives	Content	Teachers activity	Learners activity	Av aids	Evaluation

	Explain the role of teacher in management of writing disorder	**Role of teacher in management of writing disorder** ➢ Be patient and positive when practicing hand writing. ➢ Encourage proper grip, posture and paper positioning. ➢ Use oral exams and allow students to dictate assignments to a scribe. ➢ Avoid criticism for sloppiness or illegibility. ➢ Provide additional time for writing task. ➢ Use writing paper with raised lines. ➢ Allow students to use a line width that is most comfortable for them. ➢ Reduce the amount of copying needed to complete an assignment. ➢ Encourage the students to use hand exercises when he/she become fatigued. ➢ Have students complete writing activities in small steps. ➢ Prevention, remediation and accommodation are all important elements in the treatment of dysgraphia. ➢ Muscle training and over-learning good techniques are both critical for remediation of dysgraphia. ➢ Kinesthetic writing, that is writing with eyes closed or averted is a powerful reinforce. ➢ Alphabets need to be practiced daily.	Explaining and questioning	Listening and answering	Video teaching module	What are the roles of teacher in management of writing disorder?

Time	**Specific objective**	**Content**	**Teachers activity**	**Learners activity**	**Av aids**	**Evaluation**

	s					
		➢ Teach the use of a word processor, it bypass the complex motor demand of hand writing. ➢ Children might be asked to listen carefully for the sounds in words and then to represent these sounds with written letters, saying each letter aloud as it is written. ➢ The use of the computer is an example of using strengths to compensate for weakness. ➢ Treatment of motor disorders. ➢ Support child's hand and provide them cue direction. ➢ Teach proper figuring of letters. **MATHEMATICS DISORDER (DYSCALCULIA)** **Definition** Mathematics disorder (dyscalculia) is defined as a serious impairment of the learning of basic numerical –arithmetical skills in a child whose intellectual capacity and schooling are otherwise adequate.	Explaining and questioning	Listening and answering	Video teaching module	What is dyscalculia?

Time	Specific objectives	Content	Teachers activity	Learners activity	Av aids	Evaluation
		Children with mathematics disorder have difficulty in learning and remembering numerals, cannot remember basic facts about numbers and are slow and inaccurate in computation. **Underachievement in four basic skills** **1. Linguistic skills** Those related to understanding mathematical terms and converting written problems in to mathematical symbols. **2. Perceptual skills** The ability to recognize and understand symbols and order clusters of numbers **3. Mathematical skills** Poor achievement in those skills related to basic addition, subtraction, multiplication, division and following sequencing of basic operations. **4. Attentional skills** Poor achievement in copying figures correctly and observing operational symbols correctly	Explaining and questioning	Listening and answering	Video teaching module	

Time	Specific objectives	Content	Teachers activity	Learners activity	Av aids	Evaluation
	Specify the clinical features of dyscalculia	**Clinical features** • Problem with counting • Difficulty in memorizing multiplication table • Many errors in simple arithmetic • Slow in performing calculations • Difficulty in arranging numbers in order • Inability to understand mathematical symbols • Confusion with math operations • Difficulty in copying numbers and problems • Difficulty in following through a multiple step calculations such as long division • Difficulty in transposing numbers accurately on paper or on to a calculator such as turning 56 in to 65 • Difficulty with distinguishing right from left • Difficulty with using the mathematical calculation signs, • confusing basic operations and facts	Explaining and questioning	Listening and answering	Video teaching module	What are the clinical features of dyscalculia?

Time	Specific objectives	Content	Teachers activity	Learners activity	Av aids	Evaluation

	Enlist the diagnostic measures to identify mathematics disorder Explain the role of teacher in management of dyscalculia	**How to identify mathematics disorder** • Testing the intellectual ability • Screening for vision and hearing • Testing the memory • Observing the educational achievement and academic skills • Standardized arithmetic test **Role of teacher in management of dyscalculia** • Identification of problems as early as possible. • Provide examples that relate to real life situation. • Spend extra time helping students memorize math facts. • Provide remedial education with specialist teacher. • Teaching mathematics concepts with continuous practice in solving math problems. Flash cards, work books and computer games can be available as part of this treatment. • Visual techniques for example; teachers can draw pictures of word problems and show the student how to use colored pencil to differentiate parts of problems.	Explaining and questioning Explaining and questioning	Listening and answering Listening and answering	Video teaching module Video teaching module	What are the diagnostic measures to identify mathematics disorder? What are the roles of teacher in management of dyscalculia?

Time	**Specific objectives**	**Content**	**Teachers activity**	**Learners activity**	**Av aids**	**Evaluation**

5 mts	List down the team members involved in the diagnosis of learning disabilities	• Use of memory aids, rhymes and music are among the techniques that can be used to help a child remember math concepts. • Use of computers; a child with dyscalculia can use a computer for drills and practice. • Repeated practice, segmentation of subject matter, small interactive groups and the use of cues in strategy learning were found to be especially effective. **TEAM MEMBERS INVOLVED IN THE DIAGNOSIS OF SPECIFIC LEARNING DISABILITIES** • Proper diagnosis of specific learning disabilities involves a multidisciplinary approach by a team of specialist's such as the pediatrician, pediatric neurologist, counselor, clinical psychologist, teachers and special educators, child psychiatrist, social workers and parents. • Cranial CT/MRI scan electroencephalogram and blood test (e.g. Vitamin B12, folate level, thyroid hormone level, lead level) are not necessary for diagnosing specific learning disabilities.	Explaining and questioning	Listening and answering	Video teaching module	Who are all involved in the diagnosis of learning disabilities?

Time	Specific objectives	Content	Teachers activity	Learners activity	Av aids	Evaluation
		IS THERE A CURE FOR LEARNING DISABILITIES Learning disabilities are lifelong conditions. Learning disabilities have no cure, but early intervention can provide tools and strategies to lessen their effects. People with learning disabilities can be successful in school and work and their personal lives. Getting help earlier increases the likelihood for success in school and later in life. If learning disabilities remain untreated, a child may begin to feel frustrated with school work, which can lead to low self esteem, depression and other problems. **CONCLUSION** Individuals with learning disabilities are bright and capable. Giving them the right tools help in the areas affected such as reading, writing, mathematics, allow them to reach their full potential. It is so worth the time and effort to help remediate these individuals. It empowers them with the correct keys to unlock doors that would otherwise have remained locked to them. One of the main Barriers encountered by students with specific learning disability is the teacher's lack of knowledge about their disability and about the rationale of provisions. The class room teachers should be sensitized to suspect, and trained to screen for this disability when the child is in primary schools.	Explaining and questioning	Listening and answering	Video teaching module	

APPENDIX- G

EVALUATION CRITERIA CHECKLIST FOR VALIDATION OF TOOL

Instructions

The expert is requested to go through the content and give your opinion in the column given in the criteria table. If the tool is not meeting the criteria please give your valuable suggestion in the remarks column:

Sl. No.	CRITERIA	YES	NO	REMARKS
1.	**Baseline Data** The items on the baseline data cover all aspects necessary for the study			
2.	Semi-structured Questionnaire on knowledge regarding learning disabilities of school children ✓ Relevant to the topic ✓ Content organization ✓ Language is simple and easy to understand ✓ Clarity of items used ✓ Any other suggestions			

APPENDIX- H

CERTIFICATE OF VALIDATION

This is to certify that the

Tool: Semi-structured questionnaire consists of two sections which includes

Section A - Socio Demographic profile

Section B - Knowledge regarding learning disabilities of school children

Prepared by **Ms. Jissa Mary Jose**, II Year M.Sc Nursing student (Child Health Nursing), Vivekanandha College of Nursing, Elayampalayam to be used in her study titled " **A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO TEACHING PROGRAMME ON KNOWLEDGE REGARDING LEARNING DISABILITIES OF SCHOOL CHILDREN AMONG PRIMARY SCHOOL TEACHERS IN A SELECTED SCHOOL AT ELAYAMPALAYAM, NAMAKKAL DISTRICT** " has been validated by me.

Signature of expert:

Name:

Designation:

Date:

Place:

Date:

PHOTOGRAPHS